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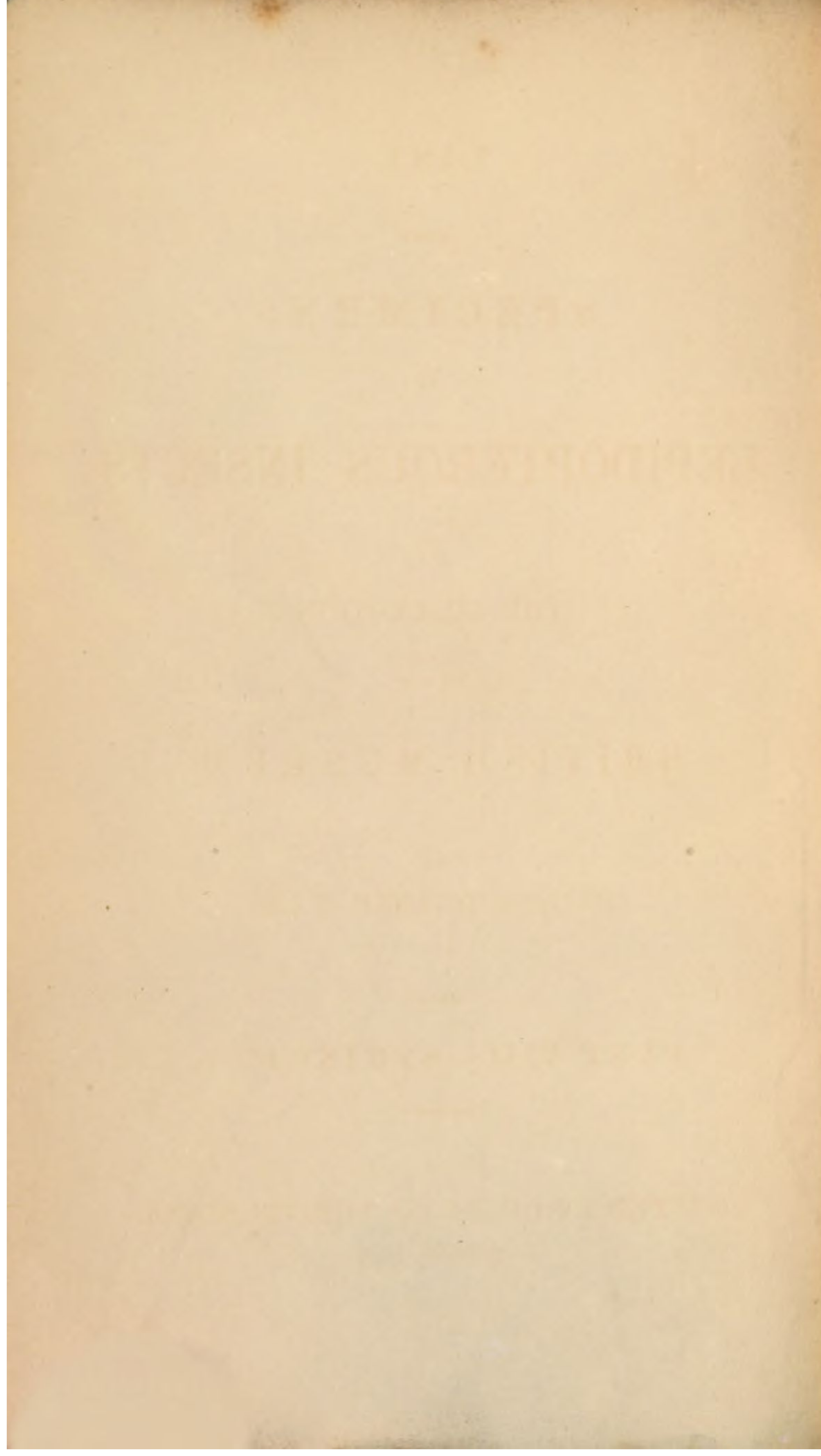
THE COLLECTION

BRITISH MUSEUM

BRITISH MUSEUM

PART VII. - APHINIDAE

PRINTED BY ORDER OF THE TRUSTEES
LONDON 1894



LIST
OF THE
SPECIMENS
OF
LEPIDOPTEROUS INSECTS
IN
THE COLLECTION
OF THE
BRITISH MUSEUM.

BY
FRANCIS WALKER, F.L.S.

PART VIII.—SPHINGIDÆ.

PRINTED BY ORDER OF THE TRUSTEES.
LONDON, 1856.



LONDON:
PRINTED BY EDWARD NEWMAN,
9, DEVONSHIRE STREET, BISHOPSGATE.

P R E F A C E .

THE object of the present Catalogue is to give a complete list of all the genera and species of Sphingidæ known to exist in the different collections. The letters *a*, *b*, *c*, &c., after the species, denote the specimens now contained in the British Museum, followed by the *habitat* and the mode in which each of them was obtained, and the absence of these *letters* indicates the species which are desiderata, and therefore desirable to be procured for the collection.

JOHN EDWARD GRAY.

British Museum,

July 28th, 1856.

PREFACE

The object of the present Catalogue is to give a complete list of all the genera and species of Sphingidae known to exist in the different collections. The list is arranged in the order of the species, under the genera, and the names of the collectors are given at the end of each species. The list is arranged in the order of the species, under the genera, and the names of the collectors are given at the end of each species.

JOHN EDWARD GALT

CATALOGUE
OF
LEPIDOPTERA HETEROCERA.

SECOND SERIES.

Tribe SESII.

See p. 2, 1st Series.

Fam. 1. STYGIIDÆ.

Larvæ vermiformes, decoloratæ, scutellatæ, radices vel fruticum medullam occulte corro dentes. Frons rotundata, squamosa. Proboscis spuria, subnulla. Antennæ *maris* subpectinato-dentatæ. Alæ coloratæ, breviores, minime hyalinæ. Tibiæ posticæ valide dentatæ. Volatus diurnus.

Stygiidæ, *Newm. Ent. Mag.* i. 67.

Stygiariæ, *Boisd. Gen. et Ind. Méth. Eur. Léop.* 39.

Zygænidæ, p., *Latr. Gen. Crust. et Ins.* iv. 189.

Fodicantes Tere dines Crassæ Hypoptæ? et Stygiæ, p., *Hübner.*

Sesii, p., *Duponch. ; Chenu.*

A. Proboscis obsoleta.

A. Abdomen alas posticas longe superans. - 1. STYGIA, *Drap.*

B. Abdomen alas posticas vix superans. - 2. CHIMÆRA, *Ochs.*

B. Proboscis distincta. - - - 3. SAGALASSA, *Walk.*

Chimæra and *Sagalassa*, especially the latter, differ much in structure from the typical genus *Stygia*.

Genus 1. STYGIA.

Corpus robustum, pilosum. Proboscis obsoleta. Palpi validi, porrecti, pilosi, caput paullo superantes; articulus 3us conicus, 2i dimidio non longior. Antennæ mediocriter pectinatæ, thorace non longiores; rami validi. Abdomen alas posticas dimidio superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor longis. Alæ parvæ; anticæ apud costam rectæ, apice subacuminatæ, margine exteriori vix obliquo.

Stygia, *Draparnaud*; *Latr. Gen. Crust. et Ins.* iv. 215; *Cuv. Règ. Anim.* ed. 2, v. 398; *Hübner Verz. Schmett.* 195; *Ochs. Schmett.* iv. 39; *Boisd. Ind. Méth.* 39; *Treit.*; *Crochard.*

Bombyx, p., *Hübner.*

Chimæra, p., *Ochs. Schmett. von Eur.* ii.

Body stout. Proboscis obsolete. Palpi stout, porrect, pilose, extending a little beyond the head; third joint conical, not more than half the length of the second. Antennæ moderately pectinated, not longer than the thorax; branches stout. Abdomen extending for more than half its length beyond the hind wings. Legs stout, pilose; hind tibiæ with four long spurs. Wings small. Fore wings straight along the costa, slightly acuminate at the tips, hardly oblique along the exterior border; first and second inferior veins approximate at the base; third at a short distance from the second, a little further from the fourth.

Nearly allied to *Cossus*.

1. STYGIA AUSTRALIS.

Alæ anticæ flavescentes, fusco undatæ; posticæ nigræ, macula magna alba.

Stygia australis, *Latr. Gen. Crust. et Ins.* iv. 215. *Ochs. Schmett. von Eur.* iv. 39. *Treits. DeVill. Ann. Soc. Linn. Paris*, v. 473. *God. Hist. Nat. Lép. Fr.* iii. 169, pl. 22, f. 19. *Boisd. Ind. Méth.* 51; ed. 2, 39. *Croch. Ed. Règ. Anim. Atlas, Ins.* pl. 149, f. 3.

Bombyx terebellum, *Hübner. Bomb.* pl. 57, f. 244.

Chimæra leucomelas, *Ochs. Schmett. von Eur.* 11, 6, 4.

Stygia terebellum, *Hübner. Verz. Schmett.* 196, 2003.

South France.

a—c. Europe. From M. Becker's collection.

d. Europe. From Mr. Children's collection.

Genus 2. CHIMÆRA.

Corpus vix robustum. Proboscis obsoleta. Palpi sat graciles, acuminati, subtus pilosi, caput longe superantes; articulus 3us lanceolatus, 2i dimidio longior. Antennæ setaceæ, thorace paullo longiores. Abdomen alas posticas vix superans. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ sat latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriori subobliquo. *Mas.*—Antennæ subpectinatæ. *Fæm.*—Antennæ serratæ.

Chimera, *Boisd. Ind. Méth. Lép. Eur.* 40.

Chimæra, p., *Ochs. Schmett. von Eur.* 11, 2; *Hübner. Verz. Schmett.* 262; *Boisd.*

Atychia, *Hoffm.*; *Latr.*; *Chenu.*

Sphinx, p., *Hübner.*; *Esp.*; *Engr.*

Pyralis, p., *Fabr.*

Noctua, p., *Hübner.*; *Bork.*

Bombyx, p., *Hübner.*

Tribe Atychides; Genus Atychia, *Duponchel.*

Body hardly stout. Proboscis obsolete. Palpi rather slender, acuminate, pilose beneath, extending far beyond the head; third joint lanceolate, more than half the length of the second. Antennæ setaceous, a little longer than the thorax. Abdomen hardly extending beyond the hind wings. Legs slender; hind tibiæ with four long spurs. Wings opaque, moderately broad. Fore wings straight in front, rounded at the tips, slightly oblique along the exterior border; inferior veins approximate at the base. *Male.*—Antennæ minutely pectinated. *Female.*—Antennæ serrated.

1. CHIMÆRA FULGURITA.

Chimæra fulgurita, *Fisch.*

Kirgis, Russia.

2. CHIMÆRA APPENDICULATA.

Alæ anticæ virescentes lineola flava; posticæ atræ, macula media ciliisque albis.

Chimæra appendiculata, *Ochs. Schmett. von Eur.* ii. 4, 2; iv. 35.

Boisd. Ind. Méth. 38; ed. 2, 40, 2; *Spec. Gén. Lép.* i. pl. 16, f. 8. *Engr. Pap. d'Eur.* iii. 70, pl. 102, f. 149; vi. 50, pl. 273, f. 438.

Pyralis Saldonana, *Fabr. Mant. Ins.* ii. 232, 71.

- Pyrallis Vahliana*, *Fabr. Ent. Syst.* iii. 2, 245, 10.
Sphinx Chimæra, *Hübner. Sphing.* ii. pl. 1, f. 1.
Noctua Chimæra, *Hübner. Noct.* pl. 64, f. 314, 315.
Noctua linea, *Bork. Eur. Schmett.* iv. 70, 26.
Sphinx appendiculata, *Esp. Schmett.* ii. 35. *Cont.* 10, f. 5, 6.
Chimæra linea, *Hübner. Verz. Schmett.* 262, 2582.
Atychia appendiculata, *Duponch. Suppl. Hist. Nat. Lép. France*,
 ii. 95, pl. 8, f. 3. *Croch. Ed. Règ. Anim. Atlas, Ins.* pl. 148,
 f. 4. *Chenu, Enc. d'Hist. Nat. Pap.* 238, f. 407. *Eversm.*
Faun. Volg. Ural. 90, 2. *Frey. Neu. Beit. Schmett.* vi. 53,
 936, pl. 513, f. 4, 5.

Piedmont. Austria. Hungary.

a—c. Europe. From M. Becker's collection.

d, e. ——— ?

3. CHIMÆRA PUMILA.

*Alæ anticæ nigro-fuscæ, fascia tenui punctisque duobus albis ;
 posticæ atræ, maculis duabus basalibus albis.*

- Chimæra pumila*, *Ochs. Schmett. von Eur.* ii. 3, 1. *Hübner. Verz.*
Schmett. 263, 2583. *Boisd. Ind. Méth.* 40, 314.
Noctua Chimæra, *Hübner. Noct.* 678, 679, pl. 86, f. 405.
Atychia pumila, *Guér. Icon. Règ. Anim.* pl. 84, bis, f. 8.
Noctua pumila, *Hübner. Noct.* pl. 147, f. 678, 679. *Duponch. Suppl.*
Hist. Nat. Lép. France, ii. 97, pl. 8, f. 4. *Chenu, Enc. d'Hist.*
Nat. Pap. 238, f. 406.

Hungary.

a. South France. From M. Becker's collection.

4. CHIMÆRA RADIATA.

*Alæ anticæ subcinereæ ; posticæ nigræ, radiis duobus ciliisque
 flavis.*

- Chimæra radiata*, *Ochs. Schmett. von Eur.* ii. 5, 3. *Boisd. Ind.*
Méth. 38 ; ed. 2, 40, 315.
Chimæra pumila, *var. ?*

Hungary.

5. CHIMÆRA FUNEBRIS.

Fœm. *Alæ fusco-nigræ; anticæ atomis albidis adpersæ maculisque duabus albis notatæ; posticæ immaculatæ.*

Chimæra funebris, *Feisthamel, Ann. Soc. Ent. Fr.* ii. 259, pl. 9, f. D. *Boisd. Ind. Méth.* 40, 316. *Duponch. Suppl. Hist. Nat. Léop. France*, ii. 99, pl. 8, f. 5.

Atychia funebris, Chenu, Enc. d'Hist. Nat. Pap. 237, f. 405.

Catalonia. Montpellier.

6. CHIMÆRA NANA.

Fusco-cinerea; alæ subtus testaceo vittatæ, anticæ strigis duabus basalibus fuscis punctisque duobus exterioribus albis.

Chimæra nana, *Treit. Schmett. Eur.* x. 1, 97. *Boisd. Ind. Méth.* 40, 317. *Frey. Neu. Beit. Schmett.* iv. 108, 586, pl. 351, f. 2.

Sicily.

7. CHIMÆRA ORBONATA.

Canescens; abdomen nigrum, cingulis albis; alæ albo ciliatæ, anticæ strigis duabus basalibus fasciæque exteriore albis, posticæ nigræ vitta lata alba.

Chimæra orbonata, *Frey. Neu. Beit. Schmett.* iv. 108, 585, pl. 351, f. 1.

Sarepta.

Genus 3. SAGALASSA.

Corpus vix robustum. Proboscis brevis. Palpi porrecti, caput sat superantes; articulus 3us conicus, 2i dimidio brevior. Abdomen alas posticas superans. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ sat angustæ, anticæ apud costam subrectæ, apice rotundatæ, margine exteriore subobliquo. *Mas.*—Antennæ filiformes, supra pilosulæ, apice attenuatæ, thorace valde longiores. *Fœm.?* — Antennæ simplices, setacæ, thorace vix longiores.

Body hardly stout. Proboscis short. Palpi porrect, extending rather beyond the head; third joint conical, less than half the length of the second. Abdomen extending rather beyond the hind wings. Legs slender; hind tibiæ with four long spurs. Wings rather narrow. Fore wings nearly straight in front, rounded at the

tips, slightly oblique along the exterior border; inferior veins approximate. *Male*.—Antennæ filiform, somewhat pilose above, attenuated at the tips, very much longer than the thorax. *Female?*—Antennæ simple, setaceous, hardly longer than the thorax.

1. SAGALASSA ROBUSTA.

Mas. *Nigra*; *pectus album*; *abdomen fascia subapicali alba*; *pedes albo fasciati*; *alæ obscure purpureæ, testaceo conspersæ, posticæ fascia subinterrupta alba*.

Male. Black. Antennæ bluish black. Pectus white. Abdomen with a white band near the tip. Legs with white bands. Wings dark purple. Fore wings with numerous testaceous flecks. Hind wings with a few testaceous flecks, and with a white almost interrupted band near the base. Length of the body $3\frac{1}{2}$ —4 lines; of the wings 8—9 lines.

a, b. Parà. From Mr. Bates' collection.

2. SAGALASSA? VALIDA.

Fœm. *Cervina*; *palpi, pectus, venter et pedes albida*; *antennæ nigrae*; *abdomen albo fasciatum*; *alæ purpureo-nigrae, anticæ albo conspersæ cervino trifasciatæ, posticæ vitta interrupta ciliisque albis*.

Female Fawn-colour. Palpi, pectus, under side of the abdomen and legs whitish. Antennæ black. Abdomen with white bands. Wings purplish black. Fore wings thinly sprinkled with white; a fawn-coloured basal band which is dilated in front, and two incomplete fawn-coloured subapical bands. Hind wings with a white interrupted stripe in front, and with white ciliæ. Length of the body 4 lines; of the wings 8 lines.

a. Parà. From Mr. Bates' collection.

The two following species recede much from the typical form, and may constitute one or two new genera.

3. SAGALASSA METALLICA.

Fœm. *Viridis*; *palpi apice acuminati*; *antennæ sat validæ*; *abdomen alas posticas dimidio superans*; *alæ anticæ subtus posticæque totæ purpureo-cuprææ*.

Female. Dark metallic-green. Third joint of the palpi acuminate. Antennæ rather stout. Abdomen extending for half its

length beyond the hind wings. Fore wings beneath and hind wings dark purplish cupreous. Length of the body 4 lines; of the wings 6 lines.

a. ——— ?

4. SAGALASSA ? PERSPICUA.

Mas. *Nigro-cuprea; antennæ validæ, simplices; abdomen alas posticas dimidio superans; alæ anticæ macula una, posticæ duabus discalibus limpidis.*

Male. Blackish cupreous. Antennæ stout, simple. Abdomen extending for half its length beyond the hind wings. Fore wings with a round limpid discal spot. Hind wings with two limpid discal spots; the fore one somewhat elongated, connected with the other, which is almost round. Length of the body 3 lines; of the wings 5 lines.

a. United States. Presented by E. Doubleday, Esq.

Fam. 2. ÆGERIIDÆ.

Statura parva aut mediocris. Corpus sæpissime gracile, nonnunquam robustum. Ocelli duo, distincti. Proboscis elongata, raro obsoleta. Palpi elongati, acuminati, ascendentes. Antennæ subclavatæ aut filiformes, apice subhamatæ et attenuatæ, sæpe pectinatæ. Tibiæ calcaribus longissimis. Alæ angustæ, sæpissime nudæ et limpidae. Volatus diurnus. Larva vermiformis, decolorata, scutellata, in medulla fruticum vel radicum occulte degens. Pupa postice spinulosa.

Sesiariæ, *Bcisd. Ind. Méth.* 41.

Ægeriidæ, *Steph. Brit. Ent. Haust.* i. 136.

Phalænina Ægeriites, *Newm. Ent. Mag.* ii. 384.

Trochiliidæ, *Westw. & Humph. Brit. Moths,* i. 32.

A. Alæ non maculatæ.

A. Corpus robustum.

A. Proboscis obsoleta aut brevis.

a. Pedes postici non dense pilosi.

i. Alæ non metallica.

1. SPHECIA, *Hübner.*

ii. Alæ plus minusve metallica.

* Antennæ non clavatæ.

† Antennæ maris pectinatæ.

7. SANNINA, *Walk.*

†† Antennæ maris simplices.

5. SINCARA, *Walk.*

- ** Antennæ clavatæ. - - 11. LENYRA, *Walk.*
 b. Pedes postici densissime pilosi. 10. MELITTIA, *Hüb.*
 B. Proboscis longiuscula.
 a. Antennæ maris pectinatæ. - - 4. TARSA, *Walk.*
 b. Antennæ maris simplices. - - 8. TOOSA, *Walk.*
 B. Corpus gracile.
 A. Antennæ subtus non dense pubescentes.
 a. Alæ non totæ opacæ. - - 2. ÆGERIA, *Fabr.*
 b. Alæ totæ opacæ. - - 6. ALONINA, *Walk.*
 i. Pedes sat validi, non ciliati. - 9. SURA, *Walk.*
 ii. Pedes graciles, ciliati. - - 12. NINIA, *Walk.*
 B. Antennæ subtus dense pubescentes. - 2. SOPHONA, *Walk.*
 B. Alæ maculatæ.
 A. Corpus robustum. - - 14. THYRETES, *Boisd.*
 B. Corpus gracile.
 a. Palpi longiusculi. - - 13. THYRIS, *Ochs.*
 b. Palpi brevis. - - 15. ARNA, *Walk.*

Genus 1. SPHECIA.

Corpus robustum. Proboscis fere obsoleta. Palpi ascendentes, acuminati, subtus basi dense pilosi; articulus 3us lanceolatus, 2i dimidio brevior. Antennæ validæ, thorace paullo longiores. Abdomen sessile. Pedes validi; tibiæ pilosæ. Alæ sat angustæ. *Mas.*—Antennæ subpectinatæ. *Fæm.*—Antennæ vix pectinatæ.

Sphinx, p., *Linn.*; *Fabr.*; *Scop.*; *Esp.*; *Bork.*; *Donov.*; *Stew.*; *Turt.*; *Haw.*; *Hüb.*

Trochilium, p., *Scopoli.*

Sphinx Sesia, *Gmelin.*

Ægeria, p., *Fabr.*

Sesia, p., *Laspeyres*; *Ochs.*; *Dup.*; *Boisd. Ind. Méth.* 41.

Sphecia, *Hüb.* *Verz. Schmett.* 127; *Steph. Cat. Brit. Lep.* 30.

Setia, p., *Meig. Syst. Besch. Eur. Schmett.*

Trochilium, *Steph. Haust.* i. 137.

Ægeria, *Newm.*

Body stout. Proboscis almost obsolete. Palpi moderately long, obliquely ascending, acuminate, rather thickly pilose beneath towards the base; third joint lanceolate, less than half the length of the second. Antennæ stout, a little longer than the thorax. Abdomen sessile. Legs stout: tibiæ somewhat pilose. Wings rather narrow. Fore wings with the four inferior veins near each other; second superior vein forked at before half its length. *Male.*—Antennæ slightly pectinated. *Female.*—Antennæ hardly pectinated.

The European species are the type of the preceding characters, some of which are occasionally modified, as is noticed in the descriptions of the exotic species.

1. SPHECIA APIFORMIS.

Nigro-cyanea; caput supra flavum lateribus anticis albis; palpi flavi; antennæ subtus ferrugineæ; thorax flavo quadrimaculatus, disco ferrugineo; abdomen fasciis apiceque flavis; pedes lutei; alæ limpidæ ciliis purpureis, costa venisque rufescentibus.

- , *Linn. Faun. Suec.* ed. 1, 813. *Harris, Exp.* 15, pl. 3, f. 7; *V. M.* 31. *Fuessl. Ent. Mag.* pl. 1, f. A. *Deg. Ins.* ii. 1, 163, 3, pl. 2, f. 11. *Engr. Pap. d'Eur.* iii. 32, pl. 91, f. 121, 122.
- Sphinx Apiformis*, *Linn. Syst. Nat.* i. 2, 804, 29; *Faun. Suec.* 289, 1093. *Clerck, Icon.* i. pl. 9, f. 2. *Fabr. Sp. Ins.* ii. 156, 12; *Mant. Ins.* ii. 99, 12. *Sulz. Ins.* 152, pl. 20, f. 6. *Gmel. ed. Syst. Nat.* i. 5, 2388, 29. *Donov. Nat. Hist. Brit. Ins.* i. 55, pl. 25. *Lewin, Linn. Trans.* iii. pl. 3, f. 1—5. *Stew. El. Nat. Hist.* ii. 139. *Turt. Syst. Nat.* iii. 180. *Haw. Lep. Brit.* 68. *Esp. Schmett.* ii. 122, pl. 14, f. 2; 207, pl. 29, f. 2, 3; 230, 234, pl. 36, f. 2, 3, 4, 11. *Bork. Eur. Schmett.* ii. 47, 17; 132, 16. *Rhein. Mag.* i. 312, 136. *Müll. Zool. Dan.* 116, 1341. *Fuessl. A. Mag.* i. 101, 120, 132, pl. 1, f. A; *N. Mag.* ii. 2, 200, 1; iii. 2, 142. *Schw. Ins.* 33, 624. *Brahm, Ins. Kal.* 13, 7. *Lang. Verz.* ii. 73, 581—583. *Schwarz, Raup.* 360.
- Sphinx Vespiformis*, *Hübfn. Berl. Mag.* ii. 2, 184, 14. *Naturf.* vii. 105, 14; xviii. 222, pl. 5, f. 7, 8.
- Sphinx Sireciformis*, *Esp. Schmett.* ii. 208, pl. 29, f. 4, 5. *Bork. Eur. Schmett.* ii. 132, 49, 18.
- Sphinx scopigera*, *Scop. Ent. Carn.* 477.
- Sphinx Crabroniformis*, *Wein. Verz. Schmett.* 305, 44, 2. *Hübfn. Samml. Eur. Schmett.* 92, 22, pl. 8, f. 51. *Illig. N. Ausg. dess.* i. 26, 2.
- Sesia Apiformis*, *Fabr. Ent. Syst.* iii. 1, 382, 13. *Schrank, Faun. Boic.* ii. 1, 233, 1397. *Laspeyres, Ses. Eur.* 7, 1. *Vieweg, Tab. Verz.* i. 143. *Rossi, Faun. Etr.* ii. 164, 1060; *Ed. Illig.* 264, 1060. *Schæff. Icon. Nomencl. Panz.* 113, pl. 111, f. 2, 3. *God. Hist. Nat. Lép. Fr.* iii. 78, pl. 21, f. 1. *Treit. Hulf. Schmett.* 153, 1. *Ochs. Schmett. von Eur.* ii. 121, 1. *Boisd. Ind. Méth.* 44, 367. *Chenu, Enc. d'Hist. Nat. Pap.* 239, f. 411.

- Sphinx Tenebrioniformis*, *Esp. Schmett.* ii. 209, pl. 30, f. 1. *Borkh. Eur. Schmett.* ii. 50, 19. *Hübner. Samml. Eur. Schmett. Sphing.* 23, 15, pl. 8, f. 54.
- Sesia Sireciformis*, *Lasp. Ses. Eur.* 9, 2.
- Ægeria Apiformis*, *Leach, Edin. Encycl.* ix. 131. *Newm. Ent. Mag.* i. 74, 1.
- Setia Apiformis*, *Meig. Syst. Besch. Eur. Schmett.* ii. 103, 1, pl. 60, f. 6.
- Setia Tenebrioniformis*, *Meig. Syst. Besch. Eur. Schmett.* ii. 105, 3, pl. 60, f. 8.
- Setia Sireciformis*, *Meig. Syst. Besch. Eur. Schmett.* ii. 104, 2, pl. 60, f. 7.
- Sphecia Apiformis*, *Hübner. Verz. Schmett.* 127, 1369. *Steph. Cat. Brit. Lep.* 30.
- Trochilium Apiformis*, *Steph. Ill. Brit. Ent. Haust.* i. 137, 1; *Syst. Cat. Brit. Ins.* ix. 2, 34. *Curt. Brit. Ent.* viii. pl. 372, f. **
- a—m.* England. From Mr. Stephens' collection.
- n.* England. From Mr. Foxcroft's collection.
- o, r.* England.
- p, q.* Europe. From M. Becker's collection.

2. SPHECIA BEMBECEIFORMIS.

Nigra; palpi subtus flavi; thorace fascia antica flava vittisque duabus lateralibus lutescentibus; abdomen fasciis apiceque flavis; pedes lutei; alæ limpidæ, marginibus et anticarum striga discali luteis angustissimis.

- Sphinx Crabroniformis*, *Lewin, Linn. Trans.* iii. pl. 3, f. 6—10. *Haw. Lep. Brit.* 69. *Turt. Syst. Nat.* iii. 180. *Donov. Nat. Hist. Brit. Ins.* xiii. 7, pl. 436.
- Ægeria Crabroniformis*, *Leach, Edin. Cycl.* ix. 131.
- Sphinx Bembeciformis*, *Hübner. Samml. Eur. Schmett.* 92, 21, pl. 20, f. 98.
- Sesia Bembeciformis*, *Ochs. Schmett. von Eur.* ii. 126, 2; iv. 170, 2. *Boisd. Ind. Méth.* 44, 366. *Herr.-Schæff. Samml. Eur. Schmett. Ses.* pl. 1, f. 1.
- Sphecia Bembeciformis*, *Hübner. Verz. Schmett.* 127. *Steph. Cat. Brit. Lep.* 31, 2.
- Trochilium Crabroniformis*, *Steph. Ill. Brit. Ent. Haust.* i. 138, 2; *Syst. Cat. Brit. Ins.* ii. 35.
- Setia Bembeciformis*, *Meig. Syst. Besch. Eur. Schmett.* ii. 105, 4.
- Ægeria Bembeciformis*, *Newm. Ent. Mag.* i. 75, 2.

Trochilium Bembeciforme, *Curt. Brit. Ent.* viii. pl. 372, f. *
Steph. Haust. iv. 384.

a—g. England. From Mr. Stephens' collection.

h—l. England.

Asia.

3. SPHECIA REPANDA.

Fœm. *Cyaneo-nigra*; *caput albo varium*; *palpi flavi*; *antennæ luteæ, simplices, apices versus supra nigro-cyaneæ*; *thorax flavo quadrimaculatus*; *abdominis segmenta luteo marginata, apex luteus*; *pedes lutei, tibiis ex parte fuscis, posticis sat dense pilosis*; *alæ limpidæ, ciliis purpureo-ferrugineis*; *anticæ basi nigro-purpureæ*.

Female.—Bluish black. Head white in front and on each side behind, with luteous hairs beneath. Palpi yellow; third joint longer than that of the European species. Antennæ luteous, simple, subclavate, bluish black towards the tips above, very much longer than the thorax. Sides of the thorax with two yellow spots before the wings, and with some ferruginous hairs hindward. Segments of the abdomen with luteous borders; tip luteous. Legs luteous; tibiæ partly brown; hind tibiæ rather thickly clothed with hairs. Wings limpid, with purplish ferruginous ciliæ and veins. Fore wings purplish black at the base; second inferior vein much nearer to the first than to the third; third very much nearer to the fourth than to the second. Hind wings more ample than those of the European species. Length of the body 10 lines; of the wings 20 lines.

a. North India. From Mr. Stevens' collection.

4. SPHECIA CONTRACTA.

Mas. *Nigra*; *caput apud oculos flavum, margine postico luteo*; *palpi flavi*; *antennæ rufæ*; *thorax flavo bimaculatus et bivittatus*; *abdomen fasciis, macula dorsali subapicali pilisque apicalibus lateralibus luteis*; *pedes lutei, nigro vittati*; *alæ limpidæ, anticæ apud costam nigro-purpureæ, apice ferrugineæ*.

Male. Black. Head yellow about the eyes, luteous above behind. Palpi yellow, shorter than those of *S. repando*. Antennæ red, very little longer than the thorax, rather more deeply pectinated

than those of the European species. Thorax with a yellow spot on each side, and two yellow intermediate stripes. Abdomen longer than in the preceding species, with a luteous band on each segment, and a luteous dorsal spot towards the tip, which has luteous hairs on each side. Legs luteous, with black stripes; tibiæ less pilose than in the preceding species. Wings limpid, much narrower than those of *S. repanda*; veins and ciliæ ferruginous. Fore wings purplish black along part of the costa, ferruginous at the tips; inferior veins like those of *S. repanda* in structure. First inferior vein of the hind wings with a much shorter fork than that of *S. repanda*. Length of the body 9 lines; of the wings 16 lines.

Hindustan. In Mr. Saunders' collection.

5. SPHECIA DASYPODIFORMIS.

Mas. *Nigra; palpi subtus flavi, apice rufi; prothorax flavo marginatus; abdominis segmenta luteo fasciata; pedes lutei femoribus nigris, tibiis posticis dense pilosis; alæ limpidae venis ferrugineis, anticæ apud costam purpureo-nigræ.*

Male. Black. Palpi yellow beneath, red at the tips. Antennæ with black branches. Prothorax with a yellowish border. Abdominal segments with luteous bands. Legs luteous; femora mostly black; hind tibiæ more thickly clothed with hairs than those of the European species. Wings limpid; ciliæ short; cupreous black; veins mostly ferruginous. Fore wings purplish black along the costa; fork of the second superior vein much shorter than that of *S. apiformis*. Length of the body 7 lines; of the wings 14 lines.

a. ———? Presented by E. Doubleday, Esq.

North America.

6. SPHECIA? MARGINATA.

Nigra; caput apud oculos flavum; palpi flavi; thorax flavo bivitatus; abdominis segmenta flavo marginata; pedes flavi, basi nigri; alæ limpidae, anticæ marginibus, apice fasciaque pallide fuscis, posticæ nigro late ciliatæ.

Trochilium marginatum, Harris, Amer. Journ. Sci. xxxvi.; Cat .N. Amer. Sphin. 29, 1.

New Hampshire.

Genus 2. *ÆGERIA*.

Corpus gracile aut sat robustum. Proboscis longiuscula aut subobsoleta. Palpi acuminati, mediocriter longi; articulus 3us lanceolatus. Antennæ filiformes aut subclavatæ, thorace sæpissime longiores. Abdomen apice fasciculatum. Pedes graciles aut sat validi, sæpissime non fasciculati; tibiæ posticæ calcaribus quatuor longis. Alæ angustæ, integræ, limpidæ, rarissime opacæ, nunquam maculatæ.

Ægeria, p., *Fabr.*; *Leach*; *Steph.*

Sesia, p., *Ochs.*; *Laspeyres*; *Dup.*; *Boisd.*

Trochilium, p., *Scopoli.*

Trochilium, *West. & Humph.*; *Steph. Cat. Brit. Lep.* 32.

Setia, p., *Meig. Syst. Besch. Eur. Schmett.*

Ægeria has been divided by Hübner and Newman into several genera, which differ as much from each other as they do from *Sphécia*, but they are here reunited, for the characters by which they are distinguished will not apply to the exotic species, and the latter, as yet, can hardly be divided into corresponding genera.

Europe.

Group 1. *PARANTHRENE*.

Corpus sat robustum. Proboscis longiuscula. Palpi elongati, acuminati, oblique ascendentes, subtus basi pilosissimi; articulus 3us lanceolatus. Antennæ sat validæ, thorace paullo longiores. Abdomen sessile. Pedes sat validi, subpilosi; tibiæ anticæ dense pilosæ. Alæ angustæ. *Mas.*—Antennæ subfiliformes, subpectinatæ. *Fæm.*—Antennæ simplices, subclavatæ.

Paranthrene, *Hübner. Verz. Schmett.* 128. *Newm. Ent. Mag.* i. 73, 83.

Memythrus, *Newm. Essay on Sph. vespiformis*, 53.

Body moderately stout. Proboscis rather long. Palpi elongate, acuminate, obliquely ascending, very pilose beneath towards the base; third joint lanceolate. Antennæ rather stout, a little longer than the thorax. Abdomen sessile. Legs rather stout, slightly pilose; fore tibiæ thickly pilose; hind tibiæ with four long spurs. Wings narrow. Fore wings with four inferior veins: the second a little nearer to the first than to the third; third very little nearer to the second than to the fourth; three superior veins, second

forked at about half its length. *Male*.—Antennæ nearly filiform, very minutely pectinated; branches in pairs, pubescent. *Female*.—Antennæ simple, subclavate.

1. *ÆGERIA VESPIFORMIS*.

Cyaneo-nigra; palpi subtus apiceque flavi; antennæ subtus ferrugineæ; thorax maculis lateralibus fasciæque antica flavis; pedes flavi, tibiis ex parte femoribusque nigris; alæ anticæ fuscæ lineis basalibus limpidis, posticæ limpidæ, ciliis fuscis. *Mas.*—Abdomen flavo 4-fasciatum. *Fœm.*—Abdomen flavo trifasciatum.

———, *Engr. Pap. d'Eur.* iii. 30, pl. 90, f. 119.

Sphinx Vespiformis, *Linn. Syst. Nat.* ii. 804, 31; *Faun. Suec.* 1095.

Sphinx Asiliformis, *Wien. Verz. Schmett. App.* 305. *Fabr. Sp. Ins.* ii. 140, 6; *Mant. Ins.* ii. 99, 14. *Gmel. ed. Syst. Nat.* i. 5, 2372, 49. *Esp. Schmett.* ii. 205, pl. 29, f. 1. *Haw. Lep. Brit.* 69. *Donov. Nat. Hist. Brit. Ins.* xi. 67, pl. 384. *Borkh. Eur. Schmett.* ii. 131, 45, 15; 175, 14. *Schrank, Faun. Boic.* ii. 1, 233, 1398. *Fuessl. N. Mag.* ii. 2, 201, 1. *Hübner. Sph.* 91, 19, pl. 77, f. 44. *Illig. N. Ausg. dess.* i. 32, 9. *Frankf. Beit.* i. 1, 2, 33, pl. 1, f. 1. *Lang. Verz.* 2, 73, 584.

Sphinx Sesia, *Gmel. ed. Syst. Nat.* i. 5, 2387, 102.

Sphinx Tabaniformis, *Borkh. Eur. Schmett.* ii. 46, 16; *Rhein. Mag.* i. 312, 135. *Naturf.* vii. 110, 4.

Sesia Asiliformis, *Fabr. Ent. Syst.* iii. 1, 383, 16. *Vieweg, Tab. Verz.* i. 15, 4. *Rossi, Faun. Etr.* ii. 165, 1062; *Ed. Illig.* 265, 1062. *Laspeyres, Ses. Eur.* 10, 3. *Ochs. Schmett. von Eur.* ii. 128, 3. *God. Hist. Nat. Lép. Fr.* iii. 81, pl. 21, f. 2. *Treit. Hulf. Schmett.* 153, 2. *Boisd. Ind. Méth.* 31, ed. 2. 44, 364. *Chenu, Enc. d'Hist. Nat.* 239, f. 410. *Herr.-Schæff. Samml. Eur. Schmett. Ses.* pl. 1, f. 3.

Sesia Œstriformis, *Kirby & Spence, Introd. Ent.* i. pl. 3, f. 2.

Setia Asiliformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 106, 5, pl. 61, f. 1.

Ægeria Asiliformis, *Steph. Ill. Brit. Ent. Haust.* i. 139; *Syst. Cat. Brit. Ins.* 2, 35.

Memythrus Vespiformis, *Newm. Essay on Sph. Vesp.* 53.

Paranthrene Vespiformis, *Newm. Ent. Mag.* i. 83.

Trochilium Vespiforme, *Westw. & Humph.* i. 37, pl. 7, f. 3. *Steph. Cat. Brit. Lep.* 31.

a—c. England. From Mr. Stephens' collection.

d. England.

e—g. Europe. From M. Becker's collection.

h. Germany.

2. *ÆGERIA SERRATIFORMIS.*

Nigra; caput antice flavum; thoracis margo anticus flavus; abdomen flavo trifasciatum; tibiæ flavæ; alæ anticæ fuscae, vitta abbreviata fulvescente, posticæ limpidæ.

Sesia serratiformis, *Frey. Neu. Beit. Schmett.* iv. 130, 618, pl. 362, f. 3.

Hanover.

3. *ÆGERIA LAPHRIÆFORMIS.*

Sesia Laphriæformis, *Wimm. Boisd. Ind. Méth.* 44, 365.

Prussia.

4. *ÆGERIA BROSIFORMIS.*

Cyanescens; caput apud oculos, palpi antennæque testacea; thorax fulvo bivittatus; abdomen fulvescens; pedes testacei; alæ anticæ purpureo-fuscae, macula oblonga subapicali testacea, posticæ limpidæ fusco late marginatæ.

Sphinx Brosiformis, *Hübner. Samml. Eur. Schmett. Sph.* pl. 25, f. 116.

Paranthrene Brosiformis, *Hübner. Verz. Schmett.* 128, 1373.

Setia Brosiformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 108, 8.

Sesia Brosiformis, *Ochs. Schmett. von Eur.* iv. 173, 28. *Boisd. Ind. Méth.* 29; ed. 2, 41, 320.

South France. Spain.

Var. ? Sesia Aselliformis, *Rossi, Faun. Etr.* ii. 16, 365. *Boisd. Ind. Méth.* 41, 321.

Italy.

5. *ÆGERIA RHINGIÆFORMIS*.

Nigro-cyanea ; antennæ ferrugineæ ; abdomen fasciis luteis ; alæ anticæ cinereo-fuscae, posticæ limpidæ.

Sphinx Rhingiæformis, Hübn. Samml. Eur. Schmett. Sph. 92, 20, pl. 7, f. 41 ; Beitr. ii. 4, 2, 89, f. 1. Rossi, Faun. Etr. ii. 141 ; Ed. Illig. ii. 265.

Paranthrene Rhingiæformis, Hübn. Verz. Schmett. 128, 1370.

Sesia Crabroniformis, Lasp. Ses. Eur. 11, 4.

Setia Rhingiæformis, Meig. Syst. Besch. Eur. Schmett. ii. 107, 6.

Sesia Rhingiæformis, Ochs. Schmett. von Eur. ii. 130. Treit. Hulf. Schmett. 154, 3. Boisd. Ind. Méth. 31 ; ed. 2, 44, 363. Herr.-Schæff. Samml. Eur. Schmett. i. Ses. pl. 9, f. 48.

France. Germany. Italy.

6. *ÆGERIA TINEIFORMIS*.

Nigra ; abdomen segmentis, lineis lateralibus fasciculoque apicali luteis ; alæ anticæ fuscae apice luteæ ; posticæ limpidæ.

Sesia Tineiformis, Ochs. Schmett. von Eur. ii. 132, 5 ; iv. 173, 27. Boisd. Ind. Méth. 30 ; ed. 2, 41, 322.

Sphinx Tineiformis, Hübn. Samml. Eur. Schmett. Sph. 91, 18, pl. 7, f. 46. Esp. Schmett. 9, pl. 38, f. 4.

Sesia Aselliformis? Rossi, Faun. Etr. ii. 16, 365.

Paranthrene Tineiformis, Hübn. Verz. Schmett. 128, 1372.

Setia Tineiformis, Meig. Syst. Besch. Eur. Schmett. ii. 107, 7, pl. 61, f. 3.

France. Germany. Italy.

7. *ÆGERIA AGRILIFORMIS*.

Nigro-cyanea ; alæ anticæ maculis duabus discalibus limpidis ; posticæ limpidæ, marginibus strigaeque discali nigris.

Sesia Anthraciformis, Ramb. Ann. Soc. Ent. Fr. i. ; Faun. Corsic. Boisd. Ind. Méth. 41, 323. Herr.-Schæff. Eur. Schmett. i. Ses. pl. 2, f. 10.

Corsica.

8. *ÆGERIA POLISTIFORMIS*.

Ægeria Agriliformi affinis ; abdomen nigrum maculis dorsalibus fulvis obsoletis, minime annularibus ; alæ anticæ nigrae, late fenestratae, apice fulvo subnitentes.

Sesia Polistiformis, Boisd. Ind. Méth. 41, 324.

Group 2. PYROPTERON.

Corpus sat gracile. Proboscis longiuscula. Palpi longi, porrecti, acuminati, caput longe superantes; articuli 1us et 2us subtus pilosissimi; 3us nudus, longus, gracilis, lanceolatus. Antennæ sat graciles, thorace subduplo longiores. Abdomen sessile. Pedes graciles; tibiæ posteriores sat dense pilosæ. Alæ angustæ. *Mas.*—Antennæ fere filiformes, subtus subsetosæ. *Fæm.*—Antennæ graciliores, subclavatæ.

Ægeria, p., *Fabr.*; *Leach.*; *Steph.*; *Harris.*

Sesia, p., *Ochs.*; *Laspeyres*; *Dup.*; *Boisd.*

Bembecia, p., *Hübner*. *Verz.* *Schmett.*

Pyropteron, *Newm. Ent. Mag.* 75.

Body rather slender. Proboscis elongate. Palpi long, porrect, acuminate, extending far beyond the head; first and second joints very pilose beneath; third bare, long, slender, lanceolate. Antennæ rather slender, nearly twice the length of the thorax. Abdomen sessile. Legs slender; posterior tibiæ rather thickly pilose; hind tibiæ with four long spurs. Wings narrow. Fore wings with four nearly equidistant inferior veins; second superior vein forked at about half its length. *Male.*—Antennæ nearly filiform, minutely setose beneath. *Female.*—Antennæ more slender, slightly subclavate.

9. *ÆGERIA CHRYSIDIFORMIS.*

Aureo-viridis; caput antice album; palpi pallide flavi, basi subtus nigri; abdomen albo bifasciatum, apice ochraceum; pedes ochracei, femoribus nigris; alæ ferrugineo ciliatæ, anticæ ochraceæ vitta limpida maculaque discali nigra; posticæ limpide.

Sphinx Chrysidiformis, *DeVill. Ent. Linn.* ii. 103, 28, pl. 4, f. 18.

Esp. Schmett. ii. 210, pl. 30, f. 2. *Borkh. Eur. Schmett.* ii. 40, 9; 130, 8. *Hübner. Samml. Eur. Schmett.* 90, 16, pl. 8, f. 53. *Lang. Verz.* 2, 74, 593. *Haw. Lep. Brit.* 71.

————— *Engr. Pap. d' Eur.* iii. 28, pl. 90, f. 118.

Sphinx hæmorrhoidalis, *Cyrilli, Ent. Nep.* i. pl. 4, f. 3. *Rossi, Faun. Etr.* ii. 141.

Sesia Chrysidiformis, *Lasp. Ses. Eur.* 15, 8. *Ochs. Schmett. vcn Eur.* ii. 143, 10. *God. Hist. Nat. Léop. Fr.* iii. 88, pl. 21, f. 5. *Boisd. Ind. Méth.* 44, 357. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 4, f. 23; pl. 6, f. 34.

Sesia Crabroniformis, *Fabr. Ent. Syst.* iii. 1, 383, 17.

Bembecia Chrysidiformis, *Hübner Verz. Schmett.* 129, 1389.

Setia Chrysidiformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 108, 9, pl. 61, f. 2.

Ægeria Chrysidiformis, *Steph. Ill. Brit. Ent. Haust.* i. 141; *Syst. Cat. Brit. Ins.* 2, 35.

Pyropteron Chrysidiforme, *Newm. Ent. Mag.* i. 76.

Italy. North Africa.

a—c. Pyrenees. Presented by the Entomological Club.

d. South France.

10. *ÆGERIA CHALCIDIFORMIS*.

Nigra; abdomen apice rufo fasciculatum; pedes rufi, nigro varii; alæ limpidæ, anticæ fascia nigra, vitta maculaque subapicali rufis.

Sphinx Chalciformis, *Esp. Schmett.* ii. 44, pl. 47, f. 1, 2. *Hübner Samml. Eur. Schmett. Sphing.* 90, 15, pl. 19, f. 93.

Bembecia Chalcidiformis, *Hübner Verz. Schmett.* 129, 1390.

Sesia Prosopiformis, *Ochs. Schmett. von Eur.* ii. 146, 11. *Boisd. Ind. Méth.* 30; ed. 2, 43, 355. *Herr.-Schæff. Eur. Schmett.* i. Ses. pl. 6, f. 33.

Sesia Chalcidiformis, *God. Hist. Nat. Lép. Fr.* iii. 91, pl. 21, f. 6.

Setia Prosopiformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 109, 10, pl. 61, f. 6.

Hungary.

11. *ÆGERIA SCHMIDTIIFORMIS*.

Nigro-cyanea; caput rufum; thorax maculis duabus anticis lateralibus rufis; abdomen albo unifasciatum; fasciculus apicalis rufus, pilis lateralibus nigris; pedes rufi; alæ anticæ rufæ, vitta limpida, costa strigaeque discali nigro-cyaneis; posticæ limpidæ.

Ægeria Chrysidiformis, var.?

Sesia Schmidtiiformis, *Frey. Neu. Beit. Schmett.* ii. 149, 312, pl. 182, f. 1. *Boisd. Ind. Méth.* 43, 356.

Fiume, Dalmatia.

12. *ÆGERIA MINIANIFORMIS*.

Nigro-fusca ; thorax margine antico vittisque duabus flavis ; abdomen fasciis tribus flavis ; fasciculus apicalis rufo varius ; pedes rufi ; alæ limpidae, anticæ costa fasciæque nigro-fuscis rufo marginatis, margine interiore rufo.

Sesia minianiformis, Frey. Neu. Beit. Schmett. v. 35, 703, pl. 404, f. 3.

Constantinople.

13. *ÆGERIA ORYSSIFORMIS*.

Nigra ; thorax fascia antica lateribusque miniatis ; abdominis dimidium posticum miniatum ; pedes lutei, femoribus nigris ; alæ fusco marginatæ, anticæ miniatæ vitta limpida, macula discali nigra ; posticæ limpidae.

Ægeria Oryssiformis, Herr.-Schæff. Eur. Schmett. i. Ses. pl. 8, f. 45.

14. *ÆGERIA HALICTIFORMIS*.

Nigra ; abdomen apice miniatum ; tibiæ posticæ miniato cinctæ ; alæ fusco marginatæ, anticæ miniatæ, vitta limpida, maculaque discali nigra ; posticæ limpidae.

Ægeria Halictiformis, Herr.-Schæff. Eur. Schmett. i. Ses. pl. 8, f. 43.

15. *ÆGERIA FÆNIFORMIS*.

Nigra ; thorax coccineo bivittatus ; abdominis strigæ duæ laterales maculæque dorsales fasciculusque apicalis coccinea ; abdomen albo unifasciatum ; pedes coccinei, femoribus nigris ; alæ fusco marginatæ, anticæ coccineæ, apud costam nigrae, posticæ limpidae.

Sesia Fæniformis, Herr.-Schæff. Eur. Schmett. i. Ses. pl. 2, f. 11.

Group 3. *SYNANTHEDON*.

Corpus sat gracile. Proboscis breviuscula. Palpi subscendentes, acuminati, subtus parce pilosi, articulo 3o subnudo. Antennæ sat validæ, thorace valde longiores. Abdomen sessile. Pedes graciles ; tibiæ posticæ mediocriter pilosæ. Alæ angustæ. *Mas.*—Antennæ subfiliformes, subtus serratæ et pubescentes.

Ægeria, p., *Fabr.*; *Leach*; *Steph.*

Sesia, p., *Ochs.*; *Laspeyres*; *God.*; *Boisd.*

Synanthedon, *Hübner*. *Verz.* *Schmett.* 129; *Newm. Ent. Mag.* i. 77.

Body rather slender. Proboscis rather short. Palpi slightly ascending, acuminate, extending somewhat beyond the head; first and second joints slightly pilose beneath; third lanceolate, nearly bare, shorter than that of *Pyropteron*. Antennæ moderately stout, rather less than twice the length of the thorax. Abdomen sessile. Legs slender; hind tibiæ moderately pilose, with four long spurs. Wings narrow; second inferior vein a little nearer to the first than to the third; third and fourth contiguous at the base; second superior vein forked at before half its length. *Male*.—Antennæ nearly filiform, serrated and pubescent beneath.

16. *ÆGERIA* *ŒSTRIFORMIS*.

Cyaneo-nigra; caput antica flavum; palpi flavi, nigro varii; thorax fascia antica vittisque quatuor flavis; abdomen flavo quadrifasciatum; pedes flavi, femoribus nigris, tibiis nigro fasciatis; alæ limpidæ ciliis nigris, anticæ costa apiceque nigris, fascia rufa nigro marginata.

———, *Engr. Pap. d'Eur.* iii. 37, pl. 92, f. 125.

Sphinx Œstriformis, *Naturf.* vii. 189, 3. *Esp. Schmett.* ii. 181, pl. 23, f. 3. *Borkh. Eur. Schmett.* ii. 40, 10; 130, 9. *Hübner. Samml. Eur. Schmett. Sphing.* 90, 13, pl. 7, f. 43. *Haw. Lep. Brit. Fuessly, A. Mag.* i. 116, 117.

Sphinx Cynipiformis, *Esp. Schmett.* ii. 214, pl. 31, f. 3, 4. *Borkh. Eur. Schmett.* ii. 41, 11. *Hübner. Samml. Eur. Schmett. Sphing.* 90, 14, pl. 19, f. 95. *Haw. Lep. Brit.*

Sphinx Asiliformis, *Naturf.* vii. 108, 2. *Borkh. Eur. Schmett.* ii. 130, 10.

Sphinx chrysorrhæa, *Don. Hist. Nat. Brit. Ins.* iv. pl. 116.

Sphinx Tipuliformis, *Borkh. Syn.* i. 132, 9.

Sesia Vespiformis, *Fabr. Ent. Syst.* iii. 1, 385, 23. *Rossi, Faun. Etr.* ii. 165, 1065; *Ed. Illig.* 266, 1065. *God. Hist. Nat. Lép. Fr.* iii. 96, pl. 21, f. 8.

Sphinx Vespiformis, *Fabr. Mant. Ins.* ii. 101, 20. *Wien. Verz. Schmett.* 44, 5. *Gmel. ed. Syst. Nat.* i. 5, 2389, 31. *Vieweg, Tab. Verz.* i. 17, 8. *Fuessly, N. Mag.* ii. 2, 203, 6. *Illig. N. Ausg. dess.* i. 29, 5; *Mag.* ii. 38, 5.

Setia Vespiformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 113, 16, pl. 61, f. 8.

Sesia Cynipiformis, Ochs. Schmett. von Eur. ii. 151, 13. Boisd. Ind. Méth. 30; ed. 2, 43, 349.

Ægeria Cynipiformis, Steph. Ill. Brit. Ent. Haust. i. 141, 5. Wood. Ind. Ent. 14, pl. 4, f. 29.

Synanthedon Cæstriforme, Newm. Ent. Mag. i. 77.

Trochilium Cynipiforme, Steph. Cat. Brit. Lep. 32.

a—s. England. From Mr. Stephens' collection.

t, v. England. From Mr. Foxcroft's collection.

u, w. England.

x, y. Europe. From M. Becker's collection.

z, aa. Europe.

17. *ÆGERIA THYREIFORMIS.*

Nigra; caput luteum; thoracis vitta duæ abdominisque fasciæ tres flavæ; tibiæ flavo bicinctæ; tarsi flavi; alæ anticæ fuscæ, maculis duabus limpidis unaque subapicali flava; posticæ limpidæ, fusco marginatæ.

Sesia Thyreiformis, Herr.-Schæff. Eur. Schmett. i. Ses. pl. 3, f. 15, 16.

18. *ÆGERIA UROCERIFORMIS.*

Nigra, caput, thoracis fascia vittæque duæ abdominisque fasciæ flava; antennæ fascia alba; pedes flavi; tibiis apice femoribusque nigris; alæ limpidæ, anticæ margine interiore fascia apiceque luteis.

Sesia Uroceriformis, Treit. Schmett. Eur. Boisd. Ind. Méth. 43, 350. Herr.-Schæff. Eur. Schmett. i. Ses. pl. 4, f. 20, 21.

Hungary.

19. *ÆGERIA SPHECIFORMIS.*

Cyaneo-nigra; antennæ ante apicem flavescences; abdomen flavo unifasciatum; alæ limpidæ, anticæ marginibus fasciæque nigro-cyaneis.

Sphinx Sphegiformis, Gmel. ed. Syst. Nat. i. 5, 2389, 101.

Sphinx Spheciformis, Fabr. Mant. Ins. ii. 97, 13. Wien. Verz. Schmett. App. 306, 10. Illig. N. Ausg. dess. i. 33, 10. Esp. Schmett. ii. 212, pl. 30, f. 4. Frankf. Beitr. i. 1, 2, 33, pl. 1, f. 2. Borkh, Eur. Schmett. ii. 43, 13; 131, 12. Rhein. Mag. i. 312, 134. Fuessl. N. Mag. ii. 2, 201, 2. Hübn. Sphing. 88, 7, pl. 16, f. 77, 78.

Sphinx Ichneumoniformis, Borkh. *Eur. Schmett.* ii. 43, 14 ; 131, 13 ; 171, 13.

———, *Engr. Pap. d' Eur.* iii. 31, pl. 90, f. 120.

Sesia Sphegiformis, Fab. *Ent. Syst.* iii. 1, 383, 15. Vieweg, *Tab. Verz.* i. 15, 5. Rossi, *Faun. Etr.* ii. 165, 1061 ; Ed. Illig. 264, 1061.

Sesia Spheciformis, Lasp. *Ses. Eur.* 12, 5. Ochs. *Schmett. von Eur.* 11, 134, 6. Treit. *Hulf. Schmett.* 154, 4. God. *Hist. Nat. Lép. Fr.* iii. 84, pl. 21, f. 3. Bois. *Ind. Méth.* 30 ; ed. 2, 44, 362. Herr.-Schæff. *Eur. Schmett.* i. *Ses.* pl. 4, f. 24. Chenu, *Enc. d'Hist. Nat. Pap.* 240, f. 413.

Bembecia Spheciformis, Hübn. *Verz. Schmett.* 129, 1381.

Trochilium Sphægiforme, Westw. & Humph. *Brit. Moths*, i. 40, pl. 7, f. 5. Steph. *Cat. Brit. Lep.* 32.

Setia Spheciformis, Meig. *Syst. Besch. Eur. Schmett.* ii. 109, 11, pl. 61, f. 4.

a. England. From Mr. Stephens' collection.

20. ÆGERIA STELIDIFORMIS.

Nigricans ; thorax fascia antica vittisque tribus fulvis ; abdomen plaga dorsali testacea ; tibiæ posticæ testaceo fasciatæ ; alæ limpidæ, anticæ testaceo vittatæ margine fasciæque fuscis.

Sesia Stelidiformis, Freyer, *Neu. Beit. Schmett.* ii. 141, 313, pl. 182, f. 2. Boisd. *Ind. Méth.* 42, 332.

Hungary.

21. ÆGERIA SCOLIÆFORMIS.

Nigro-cyanea ; antennæ apice flavescentes ; abdomen flavo bifasciatum ; fasciculus apicalis croceus ; alæ limpidæ, anticæ marginibus maculaque majore nigris.

Sphinx Scoliæformis, Borkh. *Eur. Schmett.* ii. 173, 13. Hübn. *Sphing.* pl. 23, f. 111.

Sesia Scoliæformis, Lasp. *Ses. Eur.* 13, 6, f. 1, 2. Ochs. *Schmett. von Eur.* ii. 137, 7. God. *Hist. Nat. Lép. Fr.* iii. 86, pl. 21, f. 4. Boisd. *Ind. Méth.* 44, 360. Frey. *Neu. Beit. Schmett.* v. 58, 733, pl. 418, f. 3. Chenu, *Enc. d'Hist. Nat. Pap.* 240, f. 412.

Setia Scoliæformis, Meig. *Syst. Besch. Eur.* ii. 110, 12, pl. 61, f. 5.

Bembecia Scoliæformis, Hübn. *Verz. Schmett.* 129, 1382.

Mas.? *Abdomen segmento 4o toto reliquisque margine flavis.*

Sesia Thynniformis, *Lasp. Ses. Eur.* 21, 13. *Boisd. Ind. Méth.* 44, 361.

France. Germany.

22. *ÆGERIA MELLINIFORMIS.*

Nigra ; abdomen cingulis fasciculoque apicali flavis ; alæ limpidæ, anticæ apice inauratæ, marginibus fasciæque nigris.

Sesia Melliniformis, *Lasp. Ses. Eur.* 19, 11, f. 5, 6. *Ochs. Schmett. von Eur.* ii. 154, 14. *God. Hist. Nat. Lép. Fr.* iii. 99, pl. 21, f. 9. *Boisd. Ind. Méth.* 30 ; ed. 2, 43, 348. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 9, f. 51.

Bembecia Melliniformis, *Hübner. Verz. Schmett.* 129, 1384.

Setia Melliniformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 114, 17.

South France.

23. *ÆGERIA MONEDULÆFORMIS.*

Sesia Monedulæformis, *Rambur. Faune Andal. Boisd. Ind. Méth.* 43, 347.

Andalusia.

24. *ÆGERIA ANTHRACIFORMIS.*

Nigra ; abdomen fasciis duabus fasciculoque apicali fulvis ; alæ limpidæ, anticæ costa fasciæque nigris fulvo striatis.

Setia Andrænæformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 114, 18, pl. 61, f. 9.

Sphinx Anthraciformis, *Esp. Schmett.* ii. 19, pl. 44, f. 1, 2.

Sesia Andrenæformis, *Lasp. Ses. Eur.* 20, 12. *Ochs. Schmett. von Eur.* ii. 156, 15. *Boisd. Ind. Méth.* 43, 346. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 9, f. 50.

Hungary.

Var.? *Trochilium Allantiforme*, *Newm. Ent. Mag.* i. 79, 3. *Steph. Haust.* iv. 385 ; *Cat. Brit. Lep.* 32, 5.

Trochilium Andræniforme, *Westw. & Humph. Brit. Moths.* i. 40, pl. 7, f. 5.

England.

25. *ÆGERIA STOMOXYFORMIS*.

Nigra; palpi omnino nigri; thorax fulvo bilineatus; abdomen fascia punctisque lateralibus fulvis; alæ limpidæ, anticæ marginibus fasciæque nigris.

———, *Engr. Pap. d' Eur.* iii. 38, pl. 93, f. 126.

Sphinx Culiciformis, *Scop. Ent. Carn.* 188, 476.

Sphinx Stomoxiformis, *Hübner. Sphing.* 87, 1, pl. 7, f. 47; *Beitr.* ii. 4, 93, pl. 3, f. P.

Sesia Stomoxiformis, *Schrank, Faun. Boic.* ii. 1, 234, 1399. *Ochs. Schmett. von Eur.* ii. 157, 16. *Boisd. Ind. Méth.* 43, 345.

Setia Stomoxiformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 115, 19.

South France. Hungary. Portugal.

26. *ÆGERIA MEGILLÆFORMIS*.

Nigra, caput antice, thoracis fascia antica vittæque duæ, abdominisque fasciæ quatuor flavis; fasciculus apicalis lineis duabus luteis; pedes lutei, tibiis apice femoribusque nigris; alæ limpidæ, fusco marginatæ, anticæ posticæ et apud apicem rufo marginatæ.

Sphinx Megillæformis, *Hübner. Eur. Schmett. Sphing.* ii. *Hym. B.* 114.

Sesia Megillæformis, *Hübner. Verz. Schmett.* 129, 1394. *Boisd. Ind. Méth.* 43, 353. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 7, f. 39.

South France.

Group 4. *BEMBECIA*.

Corpus sat validum. Proboscis mediocris. Palpi porrecti, acuminati, caput longe superantes, subtus basi dense pilosi; articulus 3us lanceolatus, 2i dimidio longior. Antennæ simplices, thorace longiores. Pedes sat validi, vix pilosi. Alæ angustæ. *Mas.*—Antennæ subtus pubescentes.

Bembecia, *Hübner. Verz. Schmett.* 128. *Newm. Ent. Mag.* i. 76.

Body moderately stout. Proboscis moderately long. Palpi porrect, acuminate, extending some distance beyond the head, thickly pilose beneath towards the base; third joint lanceolate, almost bare, more than half the length of the second. Antennæ simple, slightly thicker towards the tips, longer than the thorax.

Legs moderately stout, very slightly pilose. Wings narrow. Fore wings with the second inferior vein rather nearer to the first than to the third; third further from the fourth than from the third; second superior vein forked at half its length. *Male*.—Antennæ pubescent beneath.

27. *ÆGERIA ICHNEUMONIFORMIS*.

Nigra; capitis latera antica alba; palpi flavescents, basi subtus nigri; thorax margine antico vittisque tribus flavis; abdominis segmenta marginibus posticis flavis; pili apicales flavi, ex parte nigri; pedes flavi, femoribus nigris, tibiis intermediis nigro fasciatis; alæ limpidæ ciliis auratis; anticæ costa fasciaque purpureis, apice flavescents, macula discali lutea.

———, *Engr. Pap. d'Eur.* iii. 36, pl. 92, f. 124.

Sphinx scopigera, *Scop. Ent. Carn.* 188, 477.

Sphinx Ichneumoniformis, *Fabr. Mant. Ins.* ii. 100, 19. *Wien. Verz. Schmett.* 44, 7. *Gmel. ed. Syst. Nat.* i. 5, 2390, 105. *Illig. N. Ausg. dess.* i. 31, 7. *Fuessl. N. Mag.* ii. 2, 202, 4. *Borkh. Eur. Schmett.* ii. 172, 13.

Sesia Ichneumoniformis, *Fabr. Ent. Syst.* iii. 1, 385, 22. *Rossi, Faun. Etr.* ii. 16, 364. *Lasp. Ses. Eur.* 16, 9, f. 3, 4. *Ochs. Schmett. von Eur.* ii. 148, 12; iv. 171, 11. *God. Hist. Nat. Lép. Fr.* iii. 93, pl. 21, f. 7. *Treit. Hulf. Schmett.* 155, 6. *Boisd. Ind. Méth.* 30; ed. 2, 43, 351. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 4, f. 19; pl. 7, f. 37.

Sphinx Vespiformis, *Esp. Schmett.* ii. 129, pl. 15, f. 2. *Borkh. Eur. Schmett.* ii. 38, 128, 5. *Lang. Verz.* 2, 74, 588, 589. *Hübner. Sphing.* 21, 5, pl. 6, f. 39, 40. *Haw. Lep. Brit.*

Var. Sphinx Systrophæformis, *Hübner. Sphing.* pl. 24, f. 113.

Bembecia Ichneumoniformis, *Hübner. Verz. Schmett.* 128, 1376. *Newm. Ent. Mag.* i. 77.

Setia Ichneumoniformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 112, pl. 61, f. 7.

Ægeria Ichneumoniformis, *Curt. Brit. Ent.* pl. 53. *Steph. Ill. Brit. Ent. Haust.* i. 140, 3.

Synanthedon Systrophiformis, *Hübner. Verz. Schmett.* 129, 1393.

Var. Sesia Ophioniformis, *Duponch. Hist. Nat. Lép. Fr.*

Trochilium Muscæforme? *Newm. Ent. Mag.* i. 79, 2.

a. England. Presented by J. C. Dale, Esq.

b—s. England. From Mr. Stephens' collection.

t. England.

28. *ÆGERIA BRACONIFORMIS*.

Nigra ; caput flavum, gutta verticali nigra ; antennæ albo-cinctæ ; thorax flavo trivittatus ; abdomen vitta interrupta flava, fasciis tribus albis ; fasciculus apicalis flavo bivittatus ; pedes flavi ; tibiæ posteriores nigro-cinctæ ; alæ limpidæ, anticæ marginibus fascia apiceque fuscis luteo variis.

Ægeria Braconiformis, Herr.-Schæff. Eur. Schmett. i. Ses. pl. 7, f. 35.

29. *ÆGERIA ODYNERIFORMIS*.

Nigra ; caput flavum ; thorax fascia antica vittisque duabus flavis ; abdomen fasciis sex latis flavis, 1a interrupta, 2a incisa, gutta ante 3am flava ; pedes flavi, tibiis posterioribus nigro-cinctis ; alæ anticæ flavæ, apice luteæ, fascia marginibusque nigris ; posticæ limpidæ.

Ægeria Odyneriformis, Herr.-Schæff. Eur. Schmett. i. Ses. pl. 8, f. 41.

30. *ÆGERIA ALLANTIFORMIS*.

Nigra ; caput luteum ; thorax luteo bivittatus ; abdomen fasciis, quatuor (2a abbreviata) luteis ; fasciculus apicalis luteus, lateribus nigris ; pedes lutei, tibiis posterioribus nigro-cinctis ; alæ limpidæ, fusco marginatæ, anticæ apice fasciaque fuscis, macula subapicali fulva.

Ægeria Allantiformis, Herr.-Schæff. Eur. Schmett. i. Ses. pl. 8, f. 42.

31. *ÆGERIA OPHIONIFORMIS*.

Nigra, gracilis ; caput antice, thoracis fascia antica vittæque duæ abdominisque fasciæ quinque flavæ ; alæ limpidæ marginibus rufescentibus ; anticæ apice rufæ, fascia discali nigra.

Sphinx Ophioniformis, Hübn. Eur. Schmett. ii. Sphing. ii. Hym. B. f. 127.

Sesia Ophioniformis, Boisd. Ind. Méth. 43, 352.

Italy.

32. *ÆGERIA BANCHIFORMIS*.

Nigra; caput, thoracis vittæ duæ abdominisque fasciæ quatuor rufæ; alæ limpidæ, anticæ apice flavæ, fascia discali nigra.

Sphinx Banchiformis, *Hübner. Eur. Schmett.* ii. *Sphinx.* ii. *Hym.* B. f. 126.

Sesia Empiformis, *Duponch. Hist. Nat. Lép. Fr.*

Sesia Branchiformis, *Boisd. Ind. Méth.* 43, 354.

Italy.

33. *ÆGERIA EUCERÆFORMIS*.

Nigra; abdomen striga media interrupta flava; fasciculus apicalis pilis nonnullis flavis; alæ anticæ fuscæ apice inauratæ, maculis duabus limpidis.

Sesia Euceræformis, *Ochs. Schmett. von Eur.* iv. 171, 22. *Boisd. Ind. Méth.* 42, 338. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 5, f. 28, 29.

Setia Euceræformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 123, 33.

Italy.

34. *ÆGERIA STATUIFORMIS*.

Nigra; thorax fascia antica vittisque duabus flavis; abdomen flavo quinque fasciatum; pedes aurati; alæ limpidæ, anticæ costa apiceque flavescens, margine postico maculaque discali rufis.

Sesia Statuiformis, *Frey. Neu. Beit. Schmett.* ii. 142, 315, pl. 182, f. 4. *Boisd. Ind. Méth.* 42, 337.

Hungary.

35. *ÆGERIA HYLÆIFORMIS*.

Cyaneo-nigra; caput postice flavo hirtum, lateribus anticis albis; palpi apice flavi; thorax margine antico vittisque duabus flavis; abdominis segmenta marginibus posticis flavis; fasciculus apicalis luteus; pedes lutei, nigro vittati; alæ ciliis subcupreis; anticæ subcupreæ, vitta interrupta limpida, maculis duabus discalibus nigris; posticæ limpidæ.

Sphinx Apiformis, *Hübner. Sphinx.* 91, 17, pl. 8, f. 48; pl. 22, f. 108. *Larv. Lép.* ii. *Sphinx.* ii. B. f. 1, a, b.

Sesia Hylæiformis, *Lasp. Ses. Eur.* 14, 7. *Ochs. Schmett. von Eur.* ii. 138, 8. *Treit. Hulf. Schmett.* 154, 5. *Boisd. Ind. Méth.* 30; ed. 2, 44, 359. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 1, f. 2.

Bembecia Hylæiformis, *Hübner. Verz. Schmett.* 128, 137.

Setia Hylæiformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 111, 13.

France. Germany.

a. Europe. From M. Becker's collection.

b, c. Europe.

36. *ÆGERIA ALYSONIFORMIS.*

Nigra; caput flavum; thorax luteo trivittatus; abdomen flavo quadrifasciatum; femora flava; alæ anticæ nigricantes luteo variæ, maculis duabus oblongis discalibus limpidis; posticæ limpidæ, fusco luteoque marginatæ.

Ægeria Alysoniformis, *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 8, f. 46.

37. *ÆGERIA OSMIÆFORMIS.*

Nigra; caput luteum; pedes flavi, tibiis nigris; alæ anticæ fuscæ, maculis duabus discalibus limpidis flavo-cinctis; posticæ limpidæ, striga discali nigra.

Ægeria Osmiæformis, *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 9, f. 52.

38. *ÆGERIA DORYLIFORMIS.*

Nigra; antennæ ferrugineæ, apice nigræ; abdominis segmentum 4um margine albo; alæ limpidæ, anticæ marginibus fasciaque fuscis.

Sesia Doryliformis, *Ochs. Schmett. von Eur.* ii. 141, 9. *Treit. Schmett. Eur.* *Boisd. Ind. Méth.* 44, 358. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 8, f. 44.

Setia Doryliformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 111, 14.

Portugal.

Group 5. *ÆGERIA.*

Corpus gracile. Proboscis elongata. Palpi mediocriter longi, oblique ascendentes, vix pilosi; articulus 3us acuminatus, 2i dimidio brevior. Antennæ graciles, simplices, apices versus vix cras-

siores, thorace fere duplo longiores. Pedes graciles; tibiæ posteriores subpilosæ. Alæ angustæ. *Mas.*—Antennæ subtus pubescentes.

Trochilium, *Newm. Ent. Mag.* i. 78.

Bembecia, p., *Hübner*.

Body slender. Proboscis elongate. Palpi moderately long, obliquely ascending, hardly pilose: third joint acuminate, not half the length of the second. Antennæ slender, simple, very slightly thicker towards the tips, nearly twice the length of the thorax. Legs slender; posterior tibiæ slightly pilose. Wings narrow, Fore wings with the first, second and third inferior veins nearly equidistant; third a little further from the fourth than from the second; second superior vein forked at half its length. *Male.*—Antennæ pubescent beneath.

39. *ÆGERIA TIPULIFORMIS*.

Cyaneo-nigra; caput postice flavum, lateribus antice albis; palpi subtus flavi; pectus flavum; abdomen flavo trifasciatum; pedes flavo varii; alæ limpidæ, purpureo ciliatæ, anticæ costa fascia apiceque purpureis, lineolis apicalibus flavescentibus; posticæ linea costali flava.

———, *Petiv. Gazoph.* pl. 42, f. 6. *Deg. Ins.* ii. 1, 165, 4, pl. 2, f. 12. *Linn. Syst. Nat.* ed. 10, 403, 36. *Engr. Pap. d'Eur.* iii. 41, pl. 94, f. 130. *Harr. Ins. Angl.* pl. 3, f. 8. *Schæff. Icon. Ins.* pl. 224, f. 1, 2.

Sphinx Salmachus, *Linn. Syst. Nat.* ed. 10, 493, 30. *Hübner. Berl. Mag.* ii. 2, 188, 19. *Naturf.* vii. 106.

Sphinx Tipuliformis, *Linn. Faun. Suec.* 289, 1096; *Syst. Nat.* i. 2, 304, 32. *Clerck, Icon.* pl. 9, f. 31. *Fabr. Sp. Ins.* ii. 157, 15; *Mant. Ins.* ii. 100, 18. *Wien. Verz. Schmett.* 44, 4. *Fuessl. A. Mag.* i. 133, pl. 1, f. C; *N. Mag.* ii. 2, 204, 7. *Esp. Schmett.* ii. 131, pl. 15, f. 3. *Gmel. ed. Syst. Nat.* i. 5, 2390, 32. *Ill. N. Ausg. dess.* i. 29, 4. *Hübner. Sphing.* 88, 6, pl. 8, f. 49; *Larv. Lep.* ii. *Sph.* ii. *Hym. B.* f. 2, a. *Bork. Eur. Schmett.* ii. 37, 127, 168, 4; *Rhein. Mag.* i. 310, 131. *Donov. Nat. Hist. Brit. Ins.* ii. pl. 52, 53. *Lang. Verz.* ii. 74, 590—592.

Sesia Tipuliformis, *Ent. Syst.* iii. 1, 385, 21. *Schr. Faun. Boic.* ii. 1, 234, 1401. *Vieweg. Tab. Verz.* i. 17, 7. *Lasp. Ses. Eur.* 28, 19. *Rossi, Faun. Etr.* ii. 165, 1064; *Ed. Illig.* 265, 1064. *Ochs. Schmett. von Eur.* ii. 171, 23. *God. Hist. Nat. Lép. Fr.*

iii. 114, pl. 21, f. 15. *Boisd. Ind. Méth.* 29; ed. 2, 42, 336.
Treit. Hulf. Schmett. 157, 10.

Setia Tipuliformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 119, 25,
 pl. 62, f. 2.

Ægeria Tipuliformis, *Steph. Ill. Brit. Ent. Haust.* i. 142. *Harris,*
Cat. North Amer. Sphing. Amer. Journ. Sci. xxxvi.

Trochilium Tipuliforme, *Newm. Ent. Mag.* i. 78. *West. & H. Brit.*
Moths, i. 39, pl. 7, f. 7. *Step. Cat. Brit. Lep.* 32, 6.

a—m. England. From Mr. Stephens' collection.

n—p. England.

Var.? *Fœm. Purpureo-nigra; palpi subtus flavi; abdominis*
segmenta marginibus posticis flavescentibus; pedes flavo vit-
tati; alæ limpidæ, anticæ apice fasciæque purpureis.

Female. Antennæ and abdomen somewhat longer? Purplish
 black. Palpi yellow beneath. Hind borders of the abdominal seg-
 ments yellowish. Legs with yellowish stripes. Wings limpid, with
 cupreous ciliæ. Fore wings with the tips and the usual band pur-
 plish as usual, but with a broader limpid space beyond the band.
 Length of the body $4\frac{1}{2}$ lines: of the wings 8 lines.

a. United States. Presented by E. Doubleday, Esq.

40. *ÆGERIA MASARIFORMIS.*

Nigra; abdomen fasciis tribus fasciculoque apicali flavis; alæ
limpidæ, anticæ apice flavo irroratæ, marginibus fasciæque
nigris.

Sesia Masariformis, *Ochs. Schmett. von. Eur.* ii. 173, 24. *Boisd.*
Ind. Méth. 42, 334.

41. *ÆGERIA MESIÆFORMIS.*

Nigra; thorax flavo bivittatus; abdomen flavo bifasciatum; pedes
flavi, tibiis apice femoribusque nigris; alæ limpidæ, margini-
bus, anticarum fascia apiceque, posticæ striga discali nigris.
Mas.—Antennæ dimidio apicali flavo. Fœm.—Antennæ
fascia albæ.

Ægeria Mesiaformis, *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 4, f.
 17, 18.

Setia Masariformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 120, 27.

Austria.

42. *ÆGERIA EMPIIFORMIS*.

Cyaneo-nigra ; capitis latera antica alba ; palpi subtus flavi ; thorax margine antico vittisque tribus flavis ; abdomen fasciis tribus pilisque apicalibus flavis ; pedes flavo varii ; alæ limpidæ, purpureo ciliati ; anticæ costa, fascia angusta apiceque purpureis, lineolis apicalibus auratis.

Sphinx Tenthrediniformis, *Fabr. Mant. Ins.* ii. 100, 17. *Wien. Verz. Schmett.* 44, 9. *Gmel. ed. Syst. Nat.* i. 5, 2389, 104. *Illig. N. Ausg. dess.* i. 38, 6. *Fuessl. N. Mag.* ii. 2, 203, 6. *Hübner. Sphing.* 89, 9, pl. 8, f. 52 ; pl. 19, f. 94.
 ———, *Geoffr. Ins. Par.* ii. 82, 4. *Engr. Pap. d'Eur.* iii. 40, pl. 93, f. 128.

Sphinx Empiformis, *Esp. Schmett.* ii. 215, pl. 32, f. 1, 2. *Bork. Eur. Schmett.* ii. 36, 127, 2. *View. Tab. Verz.* i. 19, 10. *Hübner. Sphing.* 89, 10.

Sphinx Muscæformis, *Esp. Schmett.* 217, pl. 32, f. 6. *Borkh. Eur. Schmett.* ii. 35, 126, 1 ; *Rhein. Mag.* i. 309, 129.

Sesia Tenthrediniformis, *Lasp. Ses. Eur.* 27, 20, f. 18—22. *Ochs. Schmett. von Eur.* ii. 176, 25. *God. Hist. Nat. Lép. Fr.* iii. 116, pl. 21, f. 16. *Treit. Hulf. Schmett.* 158, 11. *Boisd. Ind. Méth.* 42, 329. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 2, f. 7—9.

Setia Empiformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 121, 28, pl. 62, f. 3.

France.

43. *ÆGERIA TENGYRÆFORMIS*.

Æ. Tenthrediniformis, var.? *Differt linea vertebrali flavo pulverulenta.*

Sesia Tengyræformis, *Ramb. Faun. Andalus. Boisd. Ind Méth.* 42, 330.

Andalusia.

44. *ÆGERIA TRIANNULIFORMIS*.

Nigro-fusca ; thorax lineis duabus aurato-flavis ; abdomen maculis sex fasciculoque apicali aurato-flavis, fasciis tribus argenteis ; antennæ apud medium albidæ ; pedes aurati ; alæ limpidæ, anticæ costa apice fasciæque aurato-fuscis.

Sesia triannuliformis, *Frey. Neu. Beit. Schmett.* v. 35, 702, pl. 404, f. 2.

Constantinople.

45. *ÆGERIA MUSCÆFORMIS*.

Cyaneo-nigra; caput lateribus antice albis; palpi subtus flavescentes; antennæ subtus luteæ, apices versus omnino nigræ; thorax margine antico vittisque tribus flavis; abdominis segmenta marginibus posticis flavis, pili apicales ex parte flavi; pedes flavo varii; alæ limpidæ, ciliis purpureis; anticæ costa apice fasciaque purpureis, lineolis flavescens.

Sphinx Muscæformis, *Esp. Schmett.* ii. 217, pl. 32, f. 5. *View. Tab. Verz.* i. 18, 9.

Sphinx Leucophiformis, *Esp. Schmett.* ii. 25, pl. 42, f. 5, 6.

Sesia Philanthiformis, *Lasp. Ses. Eur.* 31, 21, f. 23—27. *Ochs. Schmett. von Eur.* ii. 180, 26. *God. Hist. Nat. Lép. Fr.* iii. 119, pl. 21, f. 17. *Boisd. Ind. Méth.* 29; *Ed.* 2, 42, 325. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 5, f. 25, 27.

Bembecia Philanthiformis, *Hübner. Verz. Schmett.* 129, 1387.

Setia Leucophiformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 123, 32.

South France.

Var.? *Mas. Nigra*; caput, thoracis guttæ duæ strigæque duæ laterales abdominisque fasciæ quatuor flavo-alba; pedes cingulis flavo-albis; alæ anticæ fuscae, maculis duabus limpidis; posticæ limpidæ. *Fœm.*—*Nigra*; thorax albo trivittatus; abdomen vitta fasciaque albis; pedes albi.

Sesia Leucopsiformis, *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 1, f. 4; pl. 9, f. 53.

46. *ÆGERIA MERIÆFORMIS*.

Valde affinis *Æ. Muscæformi*; maculæ fenestratæ minores; antennæ in utroque sexu totæ nigræ.

Sesia Meriæformis, *Rambur, Faun. Andal. Boisd. Ind. Méth.* 42, 326.

Sesia Philanthiformis, *Lasp. Ses. Eur.* f. 28.

South France. Andalusia.

47. *ÆGERIA MYSINIFORMIS*.

Æ. Meriæformi simillima; corpus et pedes subtus albo pilosa.

Sesia Mysiniformis, Rambur, *Faun. Andal. Boisd. Ind. Méth.* 42, 327.

Andalusia.

48. *ÆGERIA OXIBELIFORMIS*.

Nigra; caput, thoracis vittæ tres abdominisque fascia sex (posticæ latissimæ) lutea; fasciculus apicalis luteis lineis quatuor nigris; pedes lutei, tibiis nigro-cinctis; alæ limpidæ, marginibus fasciaque fuscis; anticæ apice aurato-fuscæ.

Sphinx Ichneumoniformis, Hübn. *Sphing.* f. 84.

Sesia Oxibeliformis, Boisd. *Ind. Méth.* 42, 328. Herr.-Schæff. *Eur. Schmett.* i. *Ses.* pl. 7, f. 36.

South France.

49. *ÆGERIA EMPINÆFORMIS*.

Nigra; caput ex parte, thoracis vittæ tres abdominisque maculæ basales et dorsales fasciæque duæ posteriores flava; fasciculus apicalis vitta media pedesque flava; alæ limpidæ, anticæ marginibus, linea, fascia apiceque fuscis.

Sphinx Empiformis, Hübn. *Sphing.* f. 94.

Sesia Empiformis, Boisd. *Ind. Méth.* 42, 331.

Hungary.

50. *ÆGERIA MUSCINÆFORMIS*.

Nigra; caput luteum; thoracis vittæ duæ abdominisque fasciæ tres flavæ; tibiæ flavo bifasciatæ; alæ limpidæ; anticæ marginibus fascia apiceque fuscis flavo variis.

Sphinx Muscæformis, Hübn. *Sphing.* f. 92.

Setia Muscæformis, Meig. *Syst. Besch. Eur. Schmett.* ii. 121, 29, pl. 62, f. 5.

Sesia Muscæformis, Boisd. *Ind. Méth.* 42, 335. Herr.-Schæff. *Eur. Schmett.* i. *Ses.* pl. 3, f. 12, 13.

Germany.

51. *ÆGERIA NOMADÆFORMIS*.

Nigra; abdomen flavo trifasciatum; alæ limpidæ, anticæ apice aureo-fulvæ, marginibus fasciæque nigris.

—————, *Engr. Pap. d'Eur.* iii. 41, pl. 94, f. 129.

Sphinx Conopiformis, *Esp. Schmett.* ii. 213, pl. 31, f. 1, 2. *Bork. Eur. Schmett.* ii. 42, 12; 130, 11.

Sphinx Syrphiformis, *Hübner. Sphing. A. Text*, 22, 10, pl. 8, f. 50.

Sphinx Vespiformis, *Hübner. Sphing. N. Text*, 88, 5.

Sesia Nomadæformis, *Lasp. Ses. Eur.* 27, 18. *Ochs. Schmett. von Eur.* ii. 167, 21. *God. Hist. Nat. Léop. Fr.* iii. 112, pl. 21, f. 14. *Boisd. Ind. Meth.* 29; *Ed.* 2, 42, 340.

Setia Conopiformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 118, 24, pl. 62, f. 1.

France.

52. *ÆGERIA MYRMOSÆFORMIS*.

Cyanea; palpi apice testacei; tibiæ posticæ pallide flavæ; alæ anticæ ferrugineæ, posticæ subcinereæ semihyalinæ.

Ægeria Myrmosæformis, *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 6, f. 30, 31.

53. *ÆGERIA CEPHIFORMIS*.

Nigra; abdomen fasciis tribus apiceque flavis; alæ limpidæ, anticæ marginibus fasciæque nigro-cæruleis.

Sesia Cephiformis, *Ochs. Schmett. von Eur.* ii. 169, 22. *Boisd. Ind. Méth.* 42, 339. *Herr.-Schæff. Eur. Schmett.* i. *Ses.* pl. 6, f. 32.

Setia Cephiformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 119, 26.

Austria.

54. *ÆGERIA AGATHIFORMIS*.

Nigra; caput luteum; palpi fulvi, subtus albidii; thorax flavo trivittatus; pectoris latera albida; abdomen maculis dorsalibus auratis, fasciculo apicali medio luteo; pedes anteriores nigri, flavo vittati, postici lutei tarsis albidis; alæ limpidæ, anticæ squamulis albidis, apice auratæ, costa fasciisque duabus cupreis.

Black. Head luteous. Palpi tawny, whitish beneath. Thorax with three yellow stripes. Pectus whitish on each side. Abdomen with a diffuse gilded spot on each segment; three rather long apical tufts, the middle tuft luteous. Anterior legs black, with yellowish stripes; hind legs luteous, their tarsi whitish. Wings limpid; ciliæ cupreous, with whitish tips; fore wings thinly covered with whitish scales, gilded at the tips, with the costa and two bands cupreous.

a, b. Europe. From M. Becker's collection.

55. *ÆGERIA DOLERIFORMIS.*

Nigra; caput flavum; thorax fascia antica vittisque duabus flavis; abdomen flavo unifasciatum; fasciculus apicalis strigis duabus flavis; pedes flavi; alæ limpidæ marginibus et anticarum fascia apiceque auratis.

Var.? *Antennæ apice albæ; abdomen punctis duobus anticis lateralibus anticis albidis.*

Ægeria Doleriformis, Herr.-Schæff. Eur. Schmett. i. pl. 4, f. 22; pl. 7, f. 38?

56. *ÆGERIA ASTATÆFORMIS.*

Nigra; caput antice flavum, vertice luteo; thorax vittis duabus latis flavis; abdomen flavum lateribus nigris, fasciis quatuor albis; fasciculus apud medium flavus; pedes flavi, femoribus nigro vittatis; alæ limpidæ, fusco marginatæ; anticæ apice flavæ, fasciis duabus fuscis.

Sesia Astatæformis, Herr.-Schæff. Eur. Schmett. i. Ses. pl. 1, f. 5, 6.

57. *ÆGERIA TAEDIIFORMIS.*

Nigricans, capitis vertex flavus; thorax flavo bivittatus; abdomen vitta dorsali fulvescente, fascia apicali flava; fasciculus apicalis apud medium flavus; pedes flavi, tibiis apice nigris; alæ limpidæ, anticæ apice fasciaque flavescens fusco marginatis.

Sesia Taediiformis, Freyer, Neu. Beit. Schmett. ii. 142, 314, pl. 182, f. 3. Boisd. Ind. Méth. 42, 333.

Hungary.

58. *ÆGERIA* *DIOCTRIÆFORMIS*.

Nigricans; thorax fascia antica flava; abdomen flavo trifasciatum; pedes flavi, tibiis apice nigris; alæ limpidæ, nigro marginatæ; anticæ striga discali nigræ, apice fuscæ, margine interiore flavo.

Setia Dioctriæformis, Meig. *Syst. Besch. Eur. Schmett.* ii. 122, 30, pl. 62, f. 4.

59. *ÆGERIA* *BIBIONIFORMIS*.

Setia Bibioniformis, Meig. *Syst. Besch. Eur. Schmett.* ii. 122, 30, pl. 62, f. 4.

Group 6. *CONOPIA*.

Corpus gracile. Proboscis breviuscula. Palpi elongati, subascendentes, caput sat longe superantes; articuli 1us et 2us subtus pilosuli; 3us gracilis, lanceolatus, subnudus. Antennæ simplices, sat graciles, apices versus vix crassiores, thorace vix duplo longiores. Pedes graciles; tibiæ posteriores subpilosæ. Alæ angustæ. *Mas.*—Antennæ subtus pubescentes. Abdomen compressum, gracillimum.

Conopia, Hübn. *Verz. Schmett.* 129. *Newm. Ent. Mag.* i. 81.

Body slender. Proboscis rather short. Palpi elongate, slightly ascending, extending some distance beyond the head; first and second joints somewhat pilose beneath; third slender, lanceolate, nearly bare. Antennæ simple, rather slender, hardly thicker towards the tips, almost twice the length of the thorax. Legs slender; posterior tibiæ slightly pilose. Wings narrow. Fore wings with the second inferior vein a little nearer to the first than to the third; third as far from the second as from the fourth; second superior vein forked at a little beyond half its length. *Male.*—Antennæ pubescent beneath. Abdomen compressed, very slender.

60. *ÆGERIA* *CULICIFORMIS*.

Cyaneo-nigra; caput antice utrinque album; palpi subtus rufi; pectus rufum; abdomen rufo fasciatum; tarsi basi fulvescentes; alæ limpidæ; purpureo ciliatæ; anticæ costa, apice fasciæque cyaneis, basi rufescentes.

———, Deg. *Ins.* ii. 1, 166, 5, pl. 2, f. 13. *Engr. Pap. d'Eur.* iii. 44, pl. 95, f. 126.

Sphinx Culiciformis, *Linn. Faun. Suec.* 289, 1094, (ed. 1, 217); *Amæn. Acad.* v. pl. 3, f. 204; *Syst. Nat.* i. 2, 804, 30. *Clerck, Icon.* i. pl. 9, f. 3. *Scop. Ent. Carn.* 476. *Fabr. Sp. Ins.* ii. 156, 14; *Mant. Ins.* ii. 100, 16. *Wsen. Verz. Schmett.* 44, 3. *Fuessl. Ent. Mag.* pl. 1, f. B. *Esp. Schmett.* ii. 126, pl. 15, f. 1. *Gmel. ed. Syst. Nat.* i. 5, 2389, 30. *Müll. Zool. Dan.* 116, 1343. *Poda, Mus. Græc.* 81, 7. *Illig. N. Ausg. dess.* i. 273; *Mag.* ii. 38, 3. *Vieweg, Tab. Verz.* i. 16, 6. *Fuessl. A. Mag.* i. 121, 133, pl. 1, f. B; *N. Mag.* ii. 2, 202, 3; *Schw. Ins.* 33, 625. *Bork. Eur. Schmett.* ii. 38, 7; 169, 6; *Rhein. Mag.* i. 310, 132. *Hübfn. Tab. Berl. Mag.* ii. 2, 184, 15. *Lang. Verz.* ii. 73, 585—587?

Sesia Culiciformis, *Schr. Faun. Boic.* ii. 1, 234, 1400. *Lasp. Ses. Eur.* 22, 14, f. 9, 10. *Ochs. Schmett. von Eur.* ii. 159, 17; iv. 171, 16. *Treit. Hulf. Schmett.* 156, 7. *Boisd. Ind. Méth.* 30; ed. 2, 43, 344. *Frey. Neu. Beit. Schmett.* iv. 129, 617, pl. 362, f. 2.

Conopia Culiciformis, *Hübfn. Verz. Schmett.* *Newm. Ent. Mag.* i. 82, 3.

Setia Culiciformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 115, 20, pl. 61, f. 10.

Ægeria Culiciformis, *Steph. Ill. Brit. Ent. Haust.* i. 143.

Trochilium Culiciforme, *Westw. & H. Brit. Moths*, i. 41, pl. 7, f. 12. *Steph. Cat. Brit. Lep.* 33, 8.

a—f. England. From Mr. Stephens' collection.

g, h. England.

i—k. Europe. From M. Becker's collection.

61. ÆGERIA FORMICÆFORMIS.

Cyaneo-nigra; caput antice utrinque album; palpi subtus rufi; abdomen rufo latissime fasciatum; pedes ex parte albidii; alæ limpidæ cupreo ciliatæ, anticæ costa fasciaque purpureis, apice rufæ.

—————, *Engr. Pap. d'Eur.* iii. 43, pl. 95, f. 152.

Sphinx Formicæformis, *Esp. Schmett.* ii. 216, pl. 32, f. 3, 4. *Bork. Eur. Schmett.* ii. 36. 127, 3; *Rhein. Mag.* i. 310, 130. *Hübfn. Sphing. N. Text*, 87, 3. *Larv. Lep.* ii. *Sphing.* ii. *Hym.* B, f. 3.

Sphinx Tenthrediniformis, *Esp. Schmett.* ii. 211, pl. 30, f. 3. *Bork. Eur. Schmett.* ii. 39, 8; 129, 7.

Sphinx Formiciformis, *De Vill. Linn. Ent.* ii. 104.

Sphinx Nomadæformis, *Hübfn. Sphing.* pl. 19, f. 90.

Sphinx flammeus, *Haw. Prod.* 6.

Sesia Formicæformis, *Lasp. Ses. Eur.* 24, 15, f. 11, 12. *Ochs. Schmett. von Eur.* ii. 165, 20. *Boisd. Ind. Méth.* 29; ed. 2, 43, 341. *Treit. Hulf. Schmett.* 157, 9.

Conopia Formicæformis, *Hüb. Verz. Schmett. Newm. Ent. Mag.* i. 82, 2.

Setia Formicæformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 117, 23, pl. 61, f. 12.

Trochilium Formicæforme, *Westw. & H. Brit. Moths*, i. 41, pl. 7, f. 14. *Steph. Cat. Brit. Lep.* 33, 9.

a. England. Presented by T. R. Jones, Esq.

b—m. England. From Mr. Stephens' collection.

n—r. England. From Mr. Foxcroft's collection.

s. England.

t. France.

62. ÆGERIA MYOPÆFORMIS.

Cyaneo-nigra; caput antice utrinque prothoracisque latera alba; abdomen rufo fasciatum; tarsi basi albidī; alæ limpidæ purpureo marginatæ, anticæ squamis sparsis azureis, costa cyanea, fascia purpurea.

———, *Engr. Pap. d'Eur.* iii. 39, pl. 93, f. 127.

Sphinx Myopæformis, *Bork. Eur. Schmett.* ii. 169, 6, 7. *Hüb. Sphing. N. Text*, 87, 2.

Sphinx Culiciformis (var.), *Esp. Schmett.* ii. 215, pl. 31, f. 5, 6. *Hüb. Sphing. A. Text*, 21, 7, pl. 7, f. 45; pl. 19, f. 91.

Sphinx zonatus, *Donov. Nat. Hist. Brit. Ins.* v. 2, 35.

Sesia Mutillæformis, *Lasp. Ses. Eur.* 26, 17, f. 15—17. *Ochs. Schmett. von Eur.* ii. 162, 18. *Boisd. Ind. Méth.* 30; ed. 2, 43, 343. *Treit. Hulf. Schmett.* 156, 8. *Blisson, Ann. Soc. Ent. Fr. 2me Sér.* iv. 210, pl. 8, f. 2.

Ægeria Mutillæformis, *Steph. Haust.* i. 142, 7.

Ægeria Stomoxiformis, *Steph. Haust.* i. 143, 9.

Conopia Mutillæformis, *Hüb. Verz. Schmett.*

Conopia Myopæformis, *Newm. Ent. Mag.* i. 31, 1.

Setia Myopæformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 116, 21, pl. 61, f. 11.

Trochilium Myopæforme, *Westw. & H. Brit. Moths*, i. 42, pl. 7, f. 11. *Steph. Cat. Brit. Lep.* 33.

a—r. England. From Mr. Stephens' collection.

s, t. England.

v—x. Europe. From M. Becker's collection.

63. *ÆGERIA TIPHIÆFORMIS*.

Nigra ; antennæ ante apicem albæ ; abdomen rufo bifasciatum ; alæ limpidæ, anticæ marginibus fasciaque nigris.

Sphinx Culiciformis, *Fabr. Syst. Ent.* 549, 8 ; *Sp. Ins.* i. 156, 14.

Sesia Culiciformis, *Fabr. Ent. Syst.* iii. 1, 384, 19. *Rossi, Faun. Etr.* ii. 165, 1063 ; *Ed. Illig.* 265, 1063.

Sphinx Tipuliformis, *var.*, *Esp. Schmett.* ii. 5, pl. 37, f. 7.

Sphinx Tiphiaformis, *Borkh. Eur. Schmett.* ii. 174, 13, f. 4, 5. *Hübner. Sphing.* 87, 4, pl. 7, f. 42.

Sesia Tiphiaformis, *Lasp. Ses. Eur.* 25, 16, f. 13, 14. *Ochs. Schmett. von Eur.* ii. 163, 19. *Boisd. Ind. Méth.* 30 ; ed. 2, 43, 342.

Setia Typhiaformis, *Meig. Syst. Besch. Eur. Schmett.* ii. 117, 22, pl. 61, f. 12.

France. Italy.

North America.

Group PARANTHRENE.

64. *ÆGERIA BASSIFORMIS*.

Mas. Nigra ; caput postice rufo hirtum ; palpi rufo, pilis nonnullis subtus nigris ; antennæ rufæ, subpectinatae ; thorax testaceo ? bivittatus ; abdomen maculis dorsalibus testaceis ; tibiæ posteriores testaceo unifasciatæ, anticæ necnon tarsi anteriores rufa ; tarsi postici testacei ; alæ anticæ purpurascens, vitta basali limpida, strigaeque antica rufescente, posticæ limpidæ subluridæ.

Male. Black. Head with red hairs behind. Palpi red, with some black hairs beneath. Antennæ red, minutely pectinated, very slightly thickened towards the tips, very much longer than the thorax. Thorax with two testaceous (?) stripes. Abdomen with testaceous (?) dorsal spots, much narrower than that of *P. vespiformis*. Posterior tibiæ with a single testaceous band ; fore tibiæ and anterior tarsi red ; hind tibiæ and hind tarsi much longer than those of *Æ. vespiformis* ; hind tarsi testaceous. Fore wings purplish, with a limpid basal stripe, and with a reddish streak in front. Hind wings limpid, with a lurid tinge ; ciliæ cupreous. Length of the body $6\frac{1}{2}$ lines ; of the wings 12 lines.

a. United States. Presented by E. Doubleday, Esq.

Trochilium denudatum? *Harris, Amer. Journ. Sci.* xxxvi.

“Chestnut-brown. Orbits, edges of the collar, incisures of the abdomen, tibiæ and tarsi dull yellow. Antennæ brownish above, rust-yellow at the tips and beneath. Fore wings opaque, with a large triangular transparent spot adjacent to the outer hind angle, a rust-red spot at the base and another near the middle. Hind wings transparent, with the margin and fringe brown, and a rust-red costal spot.”—*Harris*.

65. *ÆGERIA PYRAMIDALIS*.

Mas. *Nigra ; palpi subtus flavi ; antennæ subtus ferrugineæ ; thorax flavo quadrimaculatus ; abdominis segmenta flavo fasciata ; pedes albido vittati ; alæ limpidæ ; anticæ costa apiceque nigro-cupreis, fascia nigro-cuprea rufo marginata, linea postica rufa.*

Ægeria pyramidalis, Barnston, MSS.

Male. Black. Head with yellow hairs about the eyes. Palpi yellow beneath; third joint elongate-conical, much less than half the length of the second. Antennæ rather stout, almost filiform, slightly pectinated, ferruginous beneath, very much longer than the thorax. Thorax with two yellow spots on each side, one at the base of the fore wing and one in front. Abdominal segments with yellow bands, which are broadest and most distinct beneath. Legs with whitish stripes. Wings limpid, with blackish cupreous ciliæ. Fore wings blackish cupreous along the costa and at the tips, and with a blackish cupreous band, which is slightly bordered with red; a red line along the hind border. Length of the body $5\frac{1}{2}$ —6 lines; of the wings 9—10 lines.

a—e. St. Martin's Falls, Albany River, Hudson's Bay. Presented by Dr. Barnston.

66. *ÆGERIA PLECIÆFORMIS*.

Mas. *Nigra ; caput postice albido hirtum ; palpi flavi ; antennæ subpectinatae ; thorax flavo bivittatus ; abdominis segmenta marginibus posticis flavis ; pedes lutei, femoribus nigris, tibiis nigro vittatis ; alæ limpidæ, anticæ costa apice fasciaque purpureo-nigris.*

Male. Black. Head with whitish hairs behind. Palpi pale yellow, somewhat shorter than those of *S. æstriforme*. Antennæ

bluish black, slightly pectinated. Thorax with a yellow stripe on each side. Hind borders of the abdominal segments yellow. Legs luteous; femora black; tibiæ with black stripes. Wings limpid. Fore wings purplish black along the costa and at the tips, and with the usual band of the same hue. Length of the body 5 lines; of the wings 10 lines.

a. Nova Scotia. From Lieut. Redman's collection.

67. *ÆGERIA TRICINCTA*.

Cyaneo-nigra; palpi apice flavi; antennæ nigræ, breves; thorax fascia antica maculisque duabus humeralibus flavis; abdomen fluvo trifasciatum; fasciculus apicalis fluvo bivittatus; tibiæ posteriores ochraceo fasciatæ; tarsi flavi, apice nigri; alæ anticæ opacæ, posticæ limpidæ marginibus fasciaque transversa media nigris.

Ægeria tricineta, Harris, Amer. Journ. Sci. xxxvi.

Massachusetts.

The two following species may perhaps not belong to the preceding group.

68. *ÆGERIA SYRINGÆ*.

Fusca; palpi, antennæ, prothorax, tibiæ intermediæ apud medium tarsique anteriores ferruginea; pedes postici tibiis apud medium tarsisque flavis; alæ anticæ linea basali limpida, posticæ limpidæ marginibus maculaque subcostali fuscis.

Ægeria Syringæ, Harris, Amer. Journ. Sci. xxxvi.

Massachusetts.

69. *ÆGERIA EXITIOSA*.

Chalybea. Mas.—Palpi, prothorax, tegularum margines, segmentorum abdominalium, margines postici, tibiæ fasciæ duæ, tarsi anteriores et fasciculi apicalis latera pallide flava; alæ limpidæ, anticæ marginibus fasciaque chalybeis. Fœm.—Abdomen croceo late fasciatum; alæ posticæ limpidæ, margine antico lato purpureo-nigro.

Ægeria exitiosa, Say, *Entomol.* ii. Harris, *New Engl. Farmer*, v.
33; *Amer. Journ. Sci.* xxxvi.

United States.

70. *ÆGERIA CAUDATA*.

Fusca; palpi, antennæ, prothorax et tarsi fulvo-flava; alæ posticæ limpidæ, margine maculaque subcostali fuscescentibus. Mas.—
Abdomen cauda apicali gracili longissima fulvo-flava; pedes postici flavi, tibiis apice et metatarsis fulvo-flavo nigroque ciliatis; alæ anticæ limpidæ, dimidio apicali opaco. Fœm.—
Abdomen fasciculo apicali brevi; pedes postici nigri, tibiis nigro ciliatis maculaque media ferruginea; alæ anticæ totæ opacæ.

Ægeria fulvicornis, Harris, *Cat. Ins. Mass.*

Ægeria caudata, Harris, *Amer. Journ. Sci.* xxxvi.

Massachusetts.

Group 3. BEMBEZIA.

71. *ÆGERIA ODYNERIPENNIS*.

Fœm. Cupreo-fusca; caput apud oculos albidum; palpi flavi; antennæ nigro-cyanæ; thorax flavo sexmaculatus; abdominis segmenta flavo fasciata; pedes flavi, femoribus fusco vittatis; alæ limpidæ, anticæ costa apice fasciæque cupreis.

Female. Dark brown, slightly cupreous. Head whitish about the eyes. Palpi yellow, obliquely ascending, not long. Antennæ bluish black, simple, subfiliform, rather stout, very little longer than the thorax. Thorax with three yellow spots on each side. Abdomen with a yellow band on the hind border of each segment. Legs yellow; femora striped with brown. Wings limpid, with cupreous ciliæ. Fore wings cupreous along the costa and at the tips, and with the usual band of the same hue. Length of the body $5\frac{1}{2}$ — $6\frac{1}{2}$ lines; of the wings 11—13 lines.

a. Nova Scotia. Presented by E. Doubleday, Esq.

b—d. Nova Scotia. From Lieut. Redman's collection.

72. *ÆGERIA EMPHYTIFORMIS*.

Mas. *Purpureo-nigra*; caput antice albo hirtum; palpi subtus pilis fuscis fulvisque dense hirtum; antennæ ferrugineæ; thorax maculis tribus fasciaque antica flavis; abdominis segmenta flavo marginata; fasciculus apicalis pilis nonnullis flavis; pedes flavo-rufi, femoribus nigris, tibiis nigrovittatis; alæ purpureo-cupreæ, anticæ apud discum rufo-flavæ; posticæ rufo substrigatæ basi limpidæ. Fœm. — Caput flavo marginatum; palpi flavi, subtus rufo hirti; antennæ rufæ, apice nigricantes; abdominis fasciculus apicalis luteus, pilis nonnullis lateralibus nigris; tibiæ totæ rufæ; alæ anticæ disco posticæque marginibus rufis.

Male. Purplish black. Head with white hairs in front. Palpi thickly clothed beneath with rather long brown and tawny hairs. Antennæ ferruginous. Thorax with a yellow band in front, and with a yellow spot at the base of each fore wing, and one at the tip of the scutellum. Abdomen with a yellow band on each segment; apical tuft black, with a few yellow hairs. Legs red, partly yellow; femora black; tibiæ with black stripes. Wings purplish cupreous. Fore wings yellow and partly red in the disk, which is interrupted by the usual band. Hind wings slightly streaked with red, limpid towards the base. Length of the body 5 lines; of the wings 10 lines. *Female*.—Head yellow in front and along the hind border. Palpi yellow, clothed beneath with reddish hairs. Antennæ red, blackish towards the tips. Apical tuft of the abdomen luteous, with a few black hairs on each side. Tibiæ wholly red. Fore wings with red disks. Hind wings mostly red along the borders.

In this species and in *Æ. Odyneripennis* the antennæ of the male are more deeply pectinated than in the European species of the group *Bembecia*.

a, b. United States. Presented by E. Doubleday, Esq.

73. *ÆGERIA HYLOTOMIFORMIS*.

Fœm. *Obscure ferruginea*; caput pilis flavido-albis; palpi flavi; antennæ apice nigricantes; thorax fasciculis duobus lateralibus flavis; abdomen testaceo varium; pedes fusci; alæ limpidæ, anticæ marginibus fasciaque, posticæ striga discali, purpureo-cupreis.

Female. Dark ferruginous. Head with yellowish white hairs behind and in front, and about the eyes. Palpi pale yellow. Antennæ blackish at the tips. Thorax with a pale yellow tuft at the base of each wing. Abdomen with a testaceous band on each segment. Legs brown; fore coxæ testaceous beneath; tibiæ with a testaceous band; spurs and tarsi testaceous. Wings limpid, with purplish cupreous ciliæ. Fore wings with the borders and the usual band of the same hue. Hind wings with a purplish cupreous streak across the tip of the discal areolet, which character distinguishes this species from *Æ. Odyneriformis*. Length of the body 6 lines; of the wings 12 lines.

a. Nova Scotia. From Lieut. Redman's collection.

74. *ÆGERIA PYRALIDIFORMIS*.

Fœm. *Cupreo-fusca*; *caput apud oculos flavo hirtum*; *palpi flavi, graciles*; *antennæ graciles, subclavatæ*; *pectus flavo bivittatum*; *abdomen flavo unifasciatum*; *tibiæ posticæ flavæ*; *tarsi postici albidi*; *alæ anticæ cupreo-fuscæ, striga subtus basali flavescente*; *posticæ limpidæ*.

Female. Cupreous-brown. Head with yellow hairs about the eyes. Palpi yellow, slender. Antennæ slender, subclavate, very much longer than the thorax. Pectus with a yellow stripe on each side. Abdomen with a yellow band at the middle of its length. Hind tibiæ mostly yellow; hind tarsi whitish. Fore wings cupreous-brown, with a yellowish basal streak on the under side. Hind wings limpid, with cupreous-brown ciliæ. Length of the body 4 lines; of the wings 8 lines.

a. United States. Presented by E. Doubleday, Esq.

75. *ÆGERIA FULVIPES*.

Cyaneo-nigra; *palpi subtus ochracei*; *antennæ apice flavescentes*; *macula utrinque apud alas, abdominis dimidium basale subtus, tibiæ posteriores tarsique ochracea*; *tibiæ posticæ ochraceo pilosæ*; *alæ limpidæ, marginibus et anticarum fascia cyaneo-nigris*.

Ægeria fulvipes, *Harris, Cat. Ins. Mass.*; *Amer. Journ. Sci.* xxxvi. Massachusetts.

76. *ÆGERIA SCITULA*.

Purpureo-nigra; caput argenteo tomentosum; palpi, prothorax, tegularum margines, pectoris latera, abdominis fascia angusta basalis, macula dorsalis fasciæque media lata, fasciculi apicalis latera, coxæ anteriores, tibiæ tarsique aurato-flava; alæ limpidæ marginibus aurato-flavis, anticæ fascia purpureo-nigra, apice purpureo-nigro lineis aurato-flavis ornato.

Ægeria scitula, Harris, Amer. Journ. Sci. xxxvi.

Massachusetts.

77. *ÆGERIA PYRI*.

Purpureo-nigra; palpi subtus, prothorax, tegularum margines, pectoris latera, abdominis linea basalis transversa, fasciæ duæ (antica angusta, postica lata), dimidiumque posticum subtus, fasciculi apicalis latera pedesque aurato-flava; alæ limpidæ, marginibus necnon anticarum fascia apiceque purpureo-nigris, hac strigis æneo-flavis.

Ægeria Pyri, Harris, New Engl. Farmer, ix. 2; Amer. Journ. Sci. xxxvi.

United States.

Group CONOPIA.

78. *ÆGERIA SAPYGÆFORMIS*.

Mas. *Cyaneo-nigra*; caput rufo hirtum; palpi rufi, basi supra nigri; antennæ subtus serratæ et pubescentes; abdomen fasciis duabus, posteriore latissima, rufis; tibiæ anteriores fulvæ, posticæ apice rufæ; tarsi testacei; alæ anticæ purpureo-cyaneæ, strigis discalibus duabus una rufa alteraque limpida; posticæ limpidæ.

Male. Bluish black. Head with red hairs behind. Palpi red, black above towards the base. Antennæ serrated and pubescent beneath, very much shorter than those of the European *Conopiæ*. Abdomen with a slight red band at the base; segments from the fifth to the eighth red; apical tuft blue. Anterior tibiæ tawny; hind tibiæ with red tips; tarsi mostly testaceous. Wings with cupreous ciliæ. Fore wings blue, purple towards the tips, with a red discal streak, behind which there is a limpid streak. Hind wings limpid. Length of the body 4 lines; of the wings 8 lines.

This species differs much from the typical form of *Conopia*, and somewhat approaches *Pyropteron*.

a. United States. Presented by E. Doubleday, Esq.

79. *ÆGERIA GELIFORMIS*.

Mas. *Nigra*; *capitis latera antica alba*; *antennæ subtus ferrugineæ*; *abdomen rufum, basi nigrum*; *fasciculus apicalis cyaneo-niger, basi rufus*; *alæ anticæ cyaneo-nigræ, posticæ limpidæ apice margineque postico nigrificantibus*.

Male. Black. Head white on each side in front. Palpi almost bare; third joint lanceolate, rather less than half the length of the second. Antennæ bluish black, simple, ferruginous beneath and slightly thicker towards the tips, about twice the length of the thorax. Abdomen red, black at the base; apical tuft bluish black, red towards the base. Fore wings bluish black. Hind wings limpid, with blackish tips and hind borders. Length of the body 3 lines; of the wings 6 lines.

a. United States. Presented by E. Doubleday, Esq.

South America.

80. *ÆGERIA MYRMOSÆPENNIS*.

Mas. *Cyaneo-nigra*; *caput apud oculos argenteum*; *palpi albi, nigro vittati*; *thorax flavo quadrivittatus*; *metathorax flavus*; *abdominis segmenta marginibus posticis flavis*; *tibiæ tarsique albido fasciata*; *alæ limpidæ, anticæ apice fasciaque cyaneo-nigris*.

Male. Bluish black. Head silvery white in front about the eyes. Palpi white, striped with black. Antennæ pubescent beneath, thickened towards the tips, rather less than twice the length of the thorax, which has two yellow stripes on each side. Metathorax yellow. Abdomen with a yellow band on the hind border of each segment; apical tuft rather long. Tibiæ and tarsi with whitish bands. Wings limpid, with short ciliæ. Fore wings bluish black along the costa and at the tips, and across the tip of the discal areolet. Length of the body 5 lines; of the wings 9 lines.

a. Parà. From Mr. Bates' collection.

81. *ÆGERIA BUPRESTIFORMIS*.

Fœm. *Cyanea*; *capitis latera antica alba*; *thorax rufo bivittatus*; *pectoris latera rufa*; *abdomen rufo unifasciatum*; *pedes subtus albo tomentosi*; *alæ anticæ purpureæ*, *striga basali limpida fasciæque lata diffusa subapicali aurata*; *posticæ limpidæ*, *purpureo marginatæ*.

Female. Blue. Head white on each side in front. Palpi black, rather long, hardly pilose; third joint lanceolate, less than half the length of the second. Antennæ black, slender, very slightly thickened towards the tips, very much longer than the thorax. Thorax with a red stripe on each side. Pectus red on each side. Abdomen with a broad red band towards the base. Legs black, with white tomentum beneath. Fore wings purple, with a limpid basal streak, and with a broad diffuse subapical gilded band. Hind wings limpid, with purple borders. Length of the body $5\frac{1}{2}$ lines; of the wings 11 lines.

Valley of the Amazon. In Mr. Saunders' collection.

82. *ÆGERIA ANOMALIFORMIS*.

Mas. *Nigro-purpurea*; *caput antice argenteum*; *palpi flavi*; *antennæ luteæ*, *simplices*, *nonnunquam nigricantes*; *thorax flavo trivittatus*; *pectus flavum*; *abdomen fasciis ventrequæ luteis*; *pedes lutei*; *alæ limpidæ*, *anticæ cupreo marginatæ et fasciatæ*.

Male. Blackish purple. Head silvery white in front. Palpi yellow, slender, almost bare, extending far beyond the head; third joint less than half the length of the second. Antennæ luteous, slender, simple, slightly thickened towards the tips, nearly twice the length of the thorax. Thorax with three yellow stripes. Pectus yellow. Abdominal segments with luteous hind borders; under side and apical tuft luteous, the latter long. Legs luteous. Wings limpid, with cupreous ciliæ. Fore wings with purplish lustre, cupreous at the tips and along the borders, and across the tip of the discal areolet. Length of the body $3\frac{1}{2}$ —5 lines; of the wings 8—9 lines.

Var. β. Antennæ blackish, luteous in the middle part.

Var. γ. Antennæ wholly blackish above.

a—c. Tapayos. From Mr. Bates' collection.

d. Villa Nova. From Mr. Bates' collection.

83. *ÆGERIA DINETIFORMIS*.

Mas. *Fulva; caput antice album; palpi flavi; antennæ nigræ, subtus ferrugineæ; thorax nigro univittatus, lateribus flavescens; abdominis segmenta flavo marginata; pedes flavescens; alæ limpidæ.*

Male. Tawny, like the preceding species in structure. Head white in front. Palpi yellow. Antennæ black, ferruginous beneath. Thorax with a black dorsal stripe; sides yellowish. Hind borders of the abdominal segments yellow; apical tuft of moderate length. Legs yellowish. Wings limpid, with purple lustre, and with cupreous-black ciliæ. Fore wings with a ferruginous line across the tip of the discal areolet. Length of the body 4 lines; of the wings 8 lines.

a. Pernambuco. From Mr. Johnson's collection.

84. *ÆGERIA TRYPHONIFORMIS*.

Mas. *Nigro-cuprea; caput antice argenteum; palpi flavi; antennæ nigræ, subtus ferrugineæ; thorax flavo quadrivittatus; latera pectusque flava; abdomen fasciis ventrequè albidis, lateribus luteis; fasciculus apicalis pilis nonnullis luteis; pedes lutei, femoribus supra tibiisque basi nigris; alæ limpidæ.* Fem.? — *Antennæ basi subtus testaceæ; abdomine luteo fasciatum, ventre testaceo; pedes lutei, tibiis apice fusciscentibus; alæ anticæ apice purpurascens luteoque strigatæ.*

Male. Blackish cupreous. Head silvery-white in front. Palpi yellow; antennæ black, dark ferruginous beneath. Thorax with four yellow stripes; sides and pectus yellow. Abdomen slightly contracted towards the base; hind borders of the segments whitish; sides luteous; under side whitish; apical tuft rather long, with a few luteous hairs. Legs luteous; femora black above; tibiæ black at the base. Wings limpid, iridescent; ciliæ cupreous, very short. *Female?* — Antennæ testaceous beneath towards the base. Hind borders of the abdominal segments luteous; under side testaceous. Legs pale luteous; tibiæ with brownish tips. Wings with rather long ciliæ. Fore wings purplish and with luteous streaks towards the tips, and with a luteous line across the tip of the discal areolet. Length of the body 4—5 lines; of the wings 8—10 lines.

a, b. Villa Nova. From Mr. Bates' collection.

c—e. Pará. From Mr. Bates' collection.

85. *ÆGERIA PLECTISCIFORMIS*.

Mas. *Purpurea; caput viride, antice album; palpi flavi; antennæ nigræ, subtus ferrugineæ; thorax luteo quadrivittatus; abdomen luteo fasciatum; fasciculus apicalis pilis perpaucis luteis; pedes lutei, nigro strigati; alæ limpidæ, anticæ costa apiceque purpureis luteo strigatis.*

Male. Purple. Head bright green, white in front. Palpi yellow. Antennæ black, ferruginous beneath. Thorax with two luteous stripes on each side. Abdomen with a luteous band on the hind border of each segment; apical tuft with very few luteous hairs. Legs luteous, streaked with black. Wings limpid; ciliæ very short. Fore wings purplish, with luteous streaks along the costa and at the tips, and with a purplish streak across the tip of the discal areolet. Length of the body 4 lines; of the wings 8 lines.

a, b. Parâ. From Mr. Bates' collection.

86. *ÆGERIA SCIOPHILÆFORMIS*.

Fœm. *Purpurea; caput auratum, apud oculos album; palpi nigri, subtus albi; antennæ nigræ, basi ferrugineæ; thoracis latera fulvescentiæ; abdominis segmenta luteo marginata; pedes tibiis apice tarsisque auratis; alæ limpidæ, anticæ apice auratæ costâ purpurea.*

Female. Dark purple. Head gilded, white about the eyes. Palpi black, white beneath. Antennæ black, ferruginous towards the base, a little longer than the thorax, which is somewhat tawny on each side. Hind borders of the abdominal segments and apical tuft pale luteous. Tarsi and tips of the tibiæ gilded. Wings limpid, with gilded veins. Fore wings purple along the costa and across the tip of the discal areolet, and with gilded tips. Length of the body 4 lines; of the wings 8 lines.

a. Parâ. From Mr. Bates' collection.

87. *ÆGERIA CERCERIFORMIS*.

Mas et fœm. *Purpurea; caput cyaneum, antice argenteum; palpi flavi; antennæ subtus fulvæ; thorax cyaneo varius; pectus argenteum; abdominis segmenta flavo marginata; fasciculus apicalis luteus, pilis nonnullis fuscis; pedes lutei, coxis femoribusque flavis; alæ limpidæ, anticæ apice auratæ, costa fasciæque purpureis.*

Male and female. Purple. Head blue, silvery in front, with luteous hairs behind. Palpi yellow, porrect, hardly pilose; third joint about half the length of the second. Antennæ nearly twice the length of the thorax, tawny beneath, except towards the tips, where they are slightly thickened. Thorax blue in front and on each side. Pectus silvery. Hind borders of the abdominal segments yellow; apical tuft luteous, with a few brown hairs. Legs luteous; coxæ and femora yellowish. Wings limpid, with gilded and rather long ciliæ. Fore wings purple along the costa, and with a purple discal band which has a gilded border; tips gilded in the male. Length of the body $3\frac{1}{2}$ lines: of the wings 7 lines.

a. Parà. From Mr. Bates' collection.

88. *ÆGERIA RHYSSÆFORMIS.*

Fœm. *Cyaneo-viridis*; *caput cupreum, apud oculos album*; *palpi albidî, apice nigrîcantes*; *thorax flavo bivittatus*; *abdomen subtus album, segmenta dorsalia albo marginata*; *fasciculus apicalis pilis nonnullis lateralibus testaceis*; *pedes albo fasciati*; *alæ limpidæ, anticæ costa apice fasciæque discali purpurascentibus*. *Mas.?*—*Cyaneo-nigra*; *palpi supra nigri*; *antennæ filiformes, subtus pubescentes*; *alæ anticæ apice opaca latiuscula*.

Female. Bluish green. Head mostly cupreous, white on each side in front and with white hairs behind. Palpi whitish, blackish towards the tips, hardly pilose. Antennæ very much longer than the thorax, hardly thickened towards the tips. Thorax with a yellowish stripe on each side. Abdomen with a white band on the hind border of each segment; under side mostly white; apical tuft with some testaceous hairs on each side. Legs with white bands. Wings limpid. Fore wings with the costa, the tips, and the usual band purplish. Length of the body 4 lines; of the wings 8 lines. *Male?*—Bluish black. Palpi black above. Antennæ filiform, simple, pubescent beneath. Apical tuft of the abdomen with fewer pale hairs than in the female. Fore wings with a broader opaque part at the tips.

a, b. Parà. From Mr. Bates' collection.

89. *ÆGERIA CLADIIFORMIS*.

Fœm. *Nigro-cyanea, sat valida; caput apud oculos argenteum; antennæ ferrugineæ, basi apiceque nigræ; abdomen ob-lanceolatum, basi albo bifasciculatum, pilis nonnullis apicalibus albidis; pedes sat validi, tibiis tarsisque subtus albidis; alæ limpidæ, anticæ dimidio basali lurido.*

Female. Blackish blue, rather stout. Head silvery on each side in front and with whitish hairs behind. Antennæ ferruginous, blackish towards each end above, slightly thickened at the tips, very little longer than the thorax. Abdomen oblanceolate, with a white tuft on each side at the base, a little longer than the thorax; apical tuft with a few whitish hairs. Legs rather stout; tibiæ and tarsi whitish and shining beneath. Wings limpid; veins black; ciliæ very short. Fore wings lurid from the base to the tip of the discal areolet. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

a. Santarem. From Mr. Bates' collection.

90. *ÆGERIA GLYPTÆFORMIS*.

Mas. *Purpureo-cuprea; caput antice argenteum; palpi flavi; antennæ fascia lata flava; thorax flavo binotatus; abdomen apud segmentorum margines subtusque flavum; fasciculus apicalis ex parte flavus; pedes flavi, articulis apice purpureiscentibus; alæ limpidæ, anticæ costa apice fasciæque discali purpureis.*

Male. Purplish cupreous. Head silvery in front. Palpi yellow. Antennæ slightly thickened towards the tips, yellow beneath, and with a broad yellow band beyond the middle. Thorax with a yellow mark on each side in front. Hind borders of the abdominal segments and under side yellow; apical tuft with many yellow hairs. Legs yellow; tips of the tibiæ and of the joints of the tarsi purplish. Wings limpid. Fore wings with the costa, the tips and the discal band purple. Length of the body $3\frac{1}{2}$ lines; of the wings 6 lines.

a. Villa Nova. From Mr. Bates' collection.

91. *ÆGERIA OPIIFORMIS*.

Fœm. *Cyaneo-nigra; caput apud oculos argenteum; palpi subtus albi; antennæ graciles; abdominis segmenta albo marginata; fasciculus apicalis auratus; pedes argenteo fasciati; alæ limpidæ, anticæ costa fasciæque discali purpureo-nigris.*

Female. Bluish black. Head silvery about the eyes. Palpi whitish beneath. Antennæ slender, somewhat thicker towards the tips, very much longer than the thorax. Hind borders of the abdominal segments whitish; apical tuft gilded. Legs with silvery white bands; fore coxæ silvery. Wings limpid; ciliæ, costa and band of the fore wings purplish black. Length of the body 3 lines; of the wings 5 lines.

a. Parà. From Mr. Bates' collection.

92. *ÆGERIA PELTASTIFORMIS.*

Fœm. *Nigra; caput antice argenteum, postice flavo hirtum; palpi lutei, subtus basi nigro hirti; antennæ clavatæ, subtus ferrugineæ; pectus flavo quadrinotatum; abdominis segmenta flavo marginata; femora flavo strigata; tibiæ tarsique antica lutea; tibiæ intermediæ flavo fasciatæ, posticæ basi apiceque flavo pilosæ; alæ hyalinæ, subluridæ.*

Female. Black. Head silvery in front, with yellow hairs behind. Palpi luteous, stout, ascending, acuminate, with black hairs at the base; third joint lanceolate, less than half the length of the second. Antennæ clavate, ferruginous and pubescent beneath, hardly longer than the thorax. Pectus with a yellow mark on each side in front, and another at the base of each fore wing. Abdominal segments with yellow hind borders; apical tuft with some yellow hairs on each side beneath. Femora with yellow streaks; fore tibiæ and fore tarsi luteous; middle tibiæ with a yellow band; hind tibiæ with yellow hairs at the base and at the tips, and with a white mark beneath between the spurs. Wings limpid, with a slight lurid tinge; ciliæ short. Fore wings with the second inferior vein a little nearer to the first than to the third; third much nearer to the fourth than to the second; second superior vein forked before half its length. Length of the body 4 lines; of the wings 8 lines.

a. Villa Nova. From Mr. Bates' collection.

93. *ÆGERIA CEROPALIFORMIS.*

Mas. *Nigricans; caput antice albidum; palpi albidii; antennæ setaceæ, dense pectinatæ; pectus albidum; abdomen ferrugineum; pedes ferruginei, femoribus anticis albidis, tibiis posterioribus densissime ciliatis; alæ limpidæ, anticæ apud costam ferrugineæ.*

Male. Blackish. Head whitish in front. Palpi whitish, not long. Antennæ setaceous, minutely and thickly pectinated, very little longer than the thorax. Pectus whitish. Abdomen ferruginous; apical tuft short. Legs ferruginous; fore femora whitish; posterior tibiæ very thickly ciliated. Wings limpid. Fore wings ferruginous along the costa. Length of the body 3 lines; of the wings 6 lines.

a. Parà. From Mr. Bates' collection.

b, c. Villa Nova. From Mr. Bates' collection.

94. *ÆGERIA CRÆSIFORMIS.*

Fœm. *Purpureo-nigra, sat valida; palpi albidī, apice nigricantes; antennæ subtus ferrugineæ; abdominis segmentum 4um albido marginatum; pedes cyanei; tibiæ tarsique subcuprea; tibiæ ciliatæ, posticæ pilis apicalibus rufo terminatis; alæ limpidæ, costa ciliisque cupreis.*

Male. Body purplish black, rather stout. Head silvery in front. Palpi whitish with blackish tips, porrect, hardly pilose. Antennæ slender, longer than the thorax, ferruginous beneath. Abdomen with a slender whitish band on the hind border of the fourth segment. Legs dark blue; tibiæ and tarsi somewhat cupreous; tibiæ ciliated; hind tibiæ very deeply ciliated; apical hairs with red tips. Wings limpid; costa and ciliæ cupreous. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

a. Parà. From Mr. Bates' collection.

b. Villa Nova. From Mr. Bates' collection.

95. *ÆGERIA ISCHNIFORMIS.*

Mas. *Purpurea; caput apud oculos album, postice luteum; palpi flavi, vix pilosi; thorax cyaneus; abdomen marginibus posticis ventrequè luteis; pedes lutei, coxis anticis albis, tibiis posticis et tarsorum posticorum articulis purpureo fasciatis; alæ limpidæ, anticæ marginibus apice fasciæque aurato-purpureis.*

Male. Purple. Head white about the eyes in front, luteous behind. Palpi yellow, hardly pilose. Antennæ slender, slightly thickened at the tips, very much longer than the thorax. Thorax mostly blue. Abdomen with a luteous band on the hind border of each segment; under side and apical tuft beneath luteous. Legs

luteous; fore coxæ white; hind tibiæ and joints of the hind tarsi with purple bands. Wings limpid. Fore wings, with the borders, the tips and the discal band gilded purple. Length of the body 3 lines; of the wings 6 lines.

a, b. Parà. From Mr. Bates' collection.

96. *ÆGERIA PORIZONIFORMIS.*

Mas et fœm. *Purpurea; caput supra cyaneum; palpi subtus albi; thorax albo trivittatus; abdomen segmentis albo marginatis, 5o et 6o subtus albis; pedes albo fasciati; alæ limpidæ, anticæ marginibus, apice fasciaque auratis.*

Male and female. Purple. Head blue above. Palpi white beneath. Thorax with three white stripes. Pectus white. Abdomen with a white band on the hind border of each segment; fifth and sixth segments beneath white. Legs with white bands. Wings limpid. Fore wings with the borders, the tips and the discal band gilded. *Male.*—Antennæ almost filiform. *Female.*—Antennæ subclavate. Length of the body 3 lines; of the wings 6 lines.

a—d. Parà. From Mr. Bates' collection.

e. Tapayos. From Mr. Bates' collection.

f. Villa Nova. From Mr. Bates' collection.

97. *ÆGERIA PANURGIFORMIS.*

Mas. *Purpureo-nigra; caput album, postice flavo hirtum; palpi albidii, apice obscuriores; antennæ clavatæ, subtus ferrugineæ; thorax flavo trivittatus; pectus flavescens; abdomen fasciis vittaque ventrali flavis; fasciculus apicalis, pilis nonnullis lateralibus flavis; pedes flavo fasciati, tibiis posticis sat dense vestitis; alæ limpidæ, marginibus et anticarum fascia cupreo-nigris.*

Male. Purplish black. Head white and shining, with pale yellow hairs behind. Palpi whitish, elongate, hardly pilose, darker towards the tips. Antennæ clavate, rather longer than the thorax, ferruginous beneath, except at the tips. Thorax with three yellow stripes. Pectus mostly clothed with yellow hairs. Abdominal segments with yellow bands; under side with a yellow stripe; apical tuft with a few yellow hairs on each side. Legs with yellow bands; hind tibiæ rather thickly clothed with hairs. Wings limpid; bor-

ders cupreous-black. Fore wings with a cupreous-black band. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

a—d. Parà. From Mr. Bates' collection.

e. Santarem. From Mr. Bates' collection.

f. Tapayos. From Mr. Bates' collection.

g. Villa Nova. From Mr. Bates' collection.

98. *ÆGERIA PANISCIFORMIS*.

Mas. *Pallide lutea; capitis vertex viridis, latera antica alba; antennæ nigræ, subtus fulvæ; thoracis discus viridis; abdomen basi apiceque viride; fasciculus apicalis ex parte niger; alæ limpidæ, anticæ marginibus fasciæque anguste fulvis.*

Male. Pale luteous. Head white on each side in front; vertex dark green. Third joint of the palpi not more than one-third of the length of the second. Antennæ black, filiform, tawny and pubescent beneath. Disk of the thorax dark green. Abdomen dark green at the base and towards the tip; apical tuft of hairs long, partly black. Wings limpid. Fore wings with the borders and the usual band tawny, very narrow. Length of the body $4\frac{1}{2}$ lines; of the wings 8 lines.

Valley of the Amazon. In Mr. Saunders' collection.

99. *ÆGERIA BLACIFORMIS*.

Fœm. *Viridis; caput antice album; palpi subtus albi; pectus album; fasciculus apicalis niger, longissimus; pedes albo fasciati; alæ limpidæ, anticæ apice fasciæque purpureis.*

Female. Green. Head white in front and with white hairs behind. Palpi white beneath. Antennæ subclavate, pubescent beneath, nearly twice the length of the thorax. Pectus white. Abdomen nearly thrice the length of the thorax; apical tuft black, very long. Legs with white bands. Wings limpid. Fore wings with the tips and the usual band purple. Length of the body 6 lines; of the wings 9 lines.

Valley of the Amazon. In Mr. Saunders' collection.

South Africa.

100. *ÆGERIA DOLERIFORMIS*.

Mas. *Nigra; caput antice album; palpi flavi, subtus albi; antennæ rufescentes, pectinatæ; thorax rufo bivittatus, antice flavo hirtus; abdominis segmenta flavo fasciata; pedes luteo vittati; alæ limpidæ, anticæ margine postico apiceque rufis, striga discali nigra rufo marginata.*

Male. Black. Head white in front and with white hairs behind. Palpi pale yellow, white beneath, thickly pilose towards the base; third joint full half the length of the second. Antennæ reddish, filiform, rather stout, moderately pectinated, a little longer than the thorax. Thorax with yellow hairs in front and with a red stripe on each side. Abdominal segments with yellow bands; basal band interrupted; apical tuft luteous at the tip. Femora and tibiæ with luteous stripes; tarsi luteous. Wings limpid; veins and ciliæ reddish, the latter with black tips. Fore wings red along the hind border and at the tips, and with a transverse black discal mark, which is bordered on the outer side with red. Length of the body 5 lines; of the wings 10 lines.

a. Port Natal. From M. Gueinzus' collection.

101. *ÆGERIA MESOCHORIFORMIS*.

Mas. *Viridis; antennæ fulvæ, subclavatæ, apice nigræ; thorax vittis duabus pallidis; pectus pallidum; abdomen fasciis pallidis; fasciculus apicalis pilis perpaucis lateralibus albis; alæ limpidæ, anticæ apice fasciaque aurato-purpureis.*

Male. Dark green. Antennæ tawny, subclavate, with two rows of very short bristles, black at the tips, very much longer than the thorax. Thorax with two pale stripes. Pectus pale. Abdomen with pale bands. Apical tuft with very few white hairs on each side. Wings limpid, with purplish ciliæ. Fore wings with the tips and the usual band gilded purplish. Length of the body 4 lines; of the wings 8 lines.

Port Natal. In Mr. Saunders' collection.

102. *ÆGERIA HILARIFORMIS*.

Viridis ; palpi testacei, apice nigri ; thorax albido bivittatus ; pectus albidum ; abdomen basi strigis duabus lateralibus albis ; pedes albo fasciati ; alæ anticæ virides, gutta discali albida ; posticæ limpidæ. Mas.—Fasciculus apicalis albidus ; alæ anticæ vitta interrupta discali limpida, posticæ marginibus angustis purpureis. Fœm.—Antennæ fascia subapicali albida ; abdomen albo unifasciatum ; alæ posticæ marginibus latis strigae discali purpureis.

Dark green. Palpi testaceous, long, slender, hardly pilose ; third joint black, lanceolate, about half the length of the second. Antennæ a little more than twice the length of the thorax. Thorax with two whitish stripes. Pectus whitish. Abdomen with a white streak on each side at the base. Legs with white bands. Fore wings dark green, with a whitish discal dot. Hind wings limpid. *Male*.—Antennæ filiform. Apical tuft of the abdomen whitish. Fore wings with an interrupted limpid discal stripe. Hind wings with narrow purplish borders. *Female*.—Antennæ with a white subapical band, hardly thickened towards the tips. Abdomen with a white band at a little beyond the middle. Hind wings with very broad purplish borders, and with a transverse discal streak of the same hue. Length of the body 4 lines ; of the wings 8 lines.

Port Natal. In Mr. Saunders' collection.

103. *ÆGERIA PLATYURIFORMIS*.

Mas. Cupreo-nigra ; palpi basi subtusque albi ; antennæ filiformes, sat validæ, subtus serratæ et pubescentes ; thorax luteo trivittatus ; abdomen albido unifasciatum ; fasciculus pilis nonnullis apice albis ; pedes albo varii ; alæ anticæ purpureo-cupreæ, vitta discali interrupta limpida ; posticæ limpidæ.

Male. Cupreous-black. Palpi white towards the base and beneath. Antennæ filiform, rather stout, serrated and pubescent beneath, much longer than the thorax. Thorax with three luteous stripes. Abdomen with a whitish band on the hind border of the fourth segment ; apical tuft long, with a few white-tipped hairs on each side. Legs cupreous ; fore coxæ beneath, spurs of the tibiæ and tarsi at the base white. Fore wings purplish cupreous, with a

limpid interrupted discal stripe. Hind wings limpid, with purplish cupreous ciliæ. Length of the body 5 lines; of the wings 8 lines.

a. Port Natal. From Dr. Krauss' collection.

104. *ÆGERIA EXOCHIFORMIS*.

Mas. *Cyaneo-viridis; caput antice argenteum; palpi subtus albidī; pectus argenteum; pedes sat validi, tarsi longi; alæ limpidæ.*

Male. Bluish green. Head silvery in front. Palpi whitish beneath. Antennæ pubescent beneath, slightly increasing in thickness to the tips, very much longer than the thorax. Pectus silvery. Legs rather stout; tarsi long. Wings limpid. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

Asia.

Group *PARANTHRENE*.

105. *ÆGERIA VESPIPENNIS*.

Nigra, robusta; capitis vertex flavescens; palpi flavi; antennæ fulvæ; thorax luteo bivittatus; abdomen fasciis luteis basique albis; pedes flavescens; alæ anticæ nigræ, strigis duabus (una basali, altera discali) luteis vittaque postica interrupta limpidæ; posticæ limpidæ, striga discali nigra.

Trochilium Vespipenne, Boisd.; Herr.-Schæff. Lép. Exot. Sp. Nov. Ser. i. f. 217.

China.

Group *ÆGERIA*.

106. *ÆGERIA LEIÆFORMIS*.

Fœm. *Cyaneo-nigra; caput antice subtusque album; palpi albidī, graciles, subtus apices versus nigri; antennæ graciles, thorace vix longiores; thorax flavo bivittatus; abdomen fasciis tribus fasciculoque apicali flavis, hoc ex parte nigro; coxæ albidæ; pedes antici testacei tarsi nigris; tibiæ tarsi-que postica albido unifasciata; alæ perangustæ, anticæ purpureo-cupreæ, posticæ limpidæ.*

Female. Bluish black. Head with yellowish hairs behind, white in front and beneath. Palpi whitish, slender, elongated,

almost bare, black beneath towards the tips; third joint lanceolate, much more than half the length of the second. Antennæ simple, slender, filiform, hardly longer than the thorax. Thorax with a yellow stripe on each side. Abdomen with three yellow bands, one at the base and two about the middle; apical tuft yellow, blackish at the tip and beneath. Coxæ whitish; fore legs testaceous, their tarsi black, testaceous at the base; hind legs rather stout; a whitish band across the middle of the tibiæ, and another at the base of the tarsus. Wings very narrow. Fore wings purplish cupreous. Hind wings limpid, with purplish cupreous ciliæ. Length of the body 4 lines; of the wings 8 lines.

a. North China. From Mr. Cuming's collection.

Country unknown.

107. *ÆGERIA LÆTA*.

Mas. *Atra; palpi sat validi; antennæ apices versus albæ; thorax albo bivittatus; pectoris latera alba; abdomen rufum maculis dorsalibus nigris, basi nigrum maculis duabus albis; pedes albi, tibiis apice femoribusque cyaneo-nigris; alæ limpidæ, anticæ apice cupreo-nigræ, striga transversa discali nigra.*

Male. Deep black. Palpi rather stout. Antennæ simple, nearly twice the length of the thorax, very slightly thickened towards the tips, white for more than one-third of the length from the tips, which are blackish. Thorax with a white stripe on each side. Pectus white on each side. Abdomen red, with black dorsal spots, which towards the base occupy the whole surface, and contain each a whitish spot. Legs white; femora and tips of the tibiæ bluish black. Wings limpid; ciliæ black and short. Fore wings with cupreous-black tips, and with a black streak across the tip of the discal areolet. Length of the body 5 lines; of the wings 10 lines.

a. ———?

108. *ÆGERIA CRYPTIFORMIS*.

Mas. *Nigra; caput postice flavo hirtum; palpi subtus pilosissimi; antennæ filiformes, subtus serratæ et pubescentes; tibiæ calcaribus fulvis; alæ limpidæ; anticæ apice fuscæ, costa fasciæque purpureo-nigris.*

Male. Black. Head behind with yellowish hairs. Palpi very pilose beneath. Antennæ filiform, serrated and pubescent beneath,

very much longer than the thorax. Tibiæ with tawny spurs. Wings limpid, with purplish black ciliæ. Fore wings brown at the tips; costa and band purplish black. Length of the body 5 lines; of the wings 9 lines.

a. ———?

Genus 3. SOPHONA.

Fœm. Corpus sat gracile. Proboscis fere obsoleta. Palpi acuminati, subpilosi, mediocriter longi; articulus 3us lanceolatus. Antennæ setacæ, subtus valde pubescentes, thorace non longiores. Abdomen fusiforme, thorace plus duplo longius. Pedes validi; tibiæ anteriores fasciculis mediis et apicalibus, posticæ latissime fasciculatæ; alæ perangustæ, anticæ opacæ, posticæ hyalinæ.

Female. Body rather slender. Proboscis almost obsolete. Palpi moderately long, acuminate, slightly pilose; third joint lanceolate. Antennæ setaceous, very pubescent beneath, as long as the thorax. Abdomen fusiform, more than twice the length of the thorax, slightly tufted at the tip. Legs stout; tibiæ tufted in the middle and at the tips; hind tarsi very thickly tufted, except towards the tips. Wings very narrow. Fore wings opaque. Hind wings hyaline.

1. SOPHONA HALICTIPENNIS.

Fœm. *Purpurascens*; caput albidum; palpi albidi, subtus nigricantes; thorax luteo strigatus; abdomen fascia basali flava, subtus basi album, tibiæ tarsique fulva, illæ nigro fasciculatæ, tarsi postici flavo fasciculati; alæ anticæ nigro-purpureæ apice cinereæ, posticæ sublimpidæ.

Female. Purplish. Head whitish. Palpi whitish, blackish beneath. Thorax with three luteous streaks. Abdomen with a slender yellow band near the base; under side white towards the base. Tibiæ and tarsi mostly tawny, the former with black tufts; hind tarsi with bright yellow tufts. Fore wings blackish purple, with cinereous tips. Hind wings nearly limpid. Length of the body $4\frac{1}{2}$ lines; of the wings 8 lines.

a. Villa Nova. From Mr. Bates' collection.

Genus 4. TARSA.

Mas. Corpus validum. Proboscis longa. Palpi validi, arcuati, ascendentes; articuli 1us et 2us subtus pilosi; 3us lanceolatus; 2i dimidio æqualis. Antennæ validæ, late pectinatæ, thorace paullo longiores; rami pubescentes. Abdomen fasciculo apicali elongato. Pedes validi, subpilosi. Alæ limpidæ; anticæ angustæ; posticæ sat latæ.

Male. Body stout. Proboscis long. Palpi stout, curved, ascending; first and second joints pilose beneath; third lanceolate, about half the length of the second. Antennæ stout, deeply pectinated, a little longer than the thorax; branches pubescent. Abdomen with a long apical tuft. Legs stout, slightly pilose. Wings limpid. Fore wings narrow, with four inferior veins; second superior vein forked at much beyond half its length. Hind wings almost twice the breadth of the fore wings.

1. TARSA BOMBYCIFORMIS.

Mas. *Nigra; caput postice rufo hirtum; palpi rufi, subtus basi flavo hirti; antennæ rufæ; thorax fascia antica vittisque quatuor luteis; abdominis segmenta luteo marginata, fasciculus apicalis luteus; pedes lutei, femoribus nigris; alæ limpidæ, anticæ marginibus fasciaque purpureo-nigris.*

Male. Black. Head clothed behind with red hairs. Palpi red, with yellow hairs beneath towards the base. Antennæ red. Prothorax with a luteous border. Thorax with the disk partly luteous, and with two luteous stripes on each side. Abdomen with a luteous band on the hind border of each segment; apical tuft luteous. Legs luteous; femora mostly black. Wings limpid; ciliæ purplish black. Fore wings with the costa, the hind border, and the usual band purplish black. Length of the body 9 lines; of the wings 16 lines.

a. ——— ?

Genus 5. SINCARA.

Mas. Corpus sat validum. Caput latum. Proboscis obsoleta. Palpi ascendentes, subtus densissime basique longissime pilosi; articulus 3us brevis, conicus. Antennæ filiformes, simplices, sat validi, basi remoti, thoracis longitudine. Abdomen fusiforme,

apice subfasciculatum, basi contractum, thorace vix longius. Pedes longiusculi, sat validi; tibiæ anticæ fasciculatæ. Alæ angustæ.

Male. Body rather stout. Head broad. Proboscis obsolete. Palpi ascending, very thickly clothed with hairs beneath, and with very long hairs towards the base; third joint short, conical. Antennæ filiform, simple, rather stout, remote from each other, as long as the thorax. Abdomen fusiform, slightly tufted at the tip, very little longer than the thorax; first segment contracted. Legs rather long and stout; fore tibiæ with a tuft of long hairs. Wings narrow. Fore wings with the second inferior vein more than twice further from the third than from the first; third much nearer to the second than to the fourth; second superior vein forked at beyond two-thirds of its length.

1. SINCARA EUMENIFORMIS.

Mas. *Obscure ferruginea, antice argenteo subtomentosa, caput nigricans; palpi basi subtus testaceo hirti; antennæ cyaneo-nigræ; abdomen rufescens; segmentum 1um fuscum, subtus albidum; pedes nigricantes, subtus testaceo vittati, calcaribus albidis; alæ anticæ subfuscescentes, semihyalinæ; posticæ limpidæ.*

Male. Dark ferruginous, with some silvery tomentum on the head and on the fore part of the thorax. Head blackish. Palpi with testaceous hairs beneath towards the base. Antennæ bluish black. Abdomen reddish; first segment brown, whitish beneath. Legs blackish, with testaceous stripes beneath; spurs whitish. Fore wings slightly brown, semihyaline. Hind wings hyaline. Length of the body $7\frac{1}{2}$ lines; of the wings 14 lines.

a. Parà. From Mr. Bates' collection.

Genus 6. ALONINA.

Fœm. Corpus sat gracile. Proboscis mediocriter longa. Palpi validi, ascendentes, longiusculi; articuli 1us et 2us subtus pilosi; 3us lanceolatus, 2i dimidio brevior. Antennæ validæ, subpectinatæ, apud apices vix crassiores, thorace valde longiores. Abdomen subcylindricum, thorace multo longius, apice subfasciculatum. Pedes validi; tibiæ posticæ pilosæ. Alæ sat angustæ.

Female. Body rather slender. Proboscis moderately long. Palpi stout, ascending, rather long; first and second joints pilose beneath; third lanceolate, less than half the length of the second.

Antennæ stout, very minutely pectinated, hardly thicker at the tips, much longer than the thorax. Abdomen nearly cylindrical, much longer than the thorax, with a slight tuft at the tip. Legs stout; hind tibiæ somewhat pilose. Wings rather narrow. Fore wings with the second inferior vein further from the first than from the third, which is almost contiguous to the fourth; second superior vein forked at much before half its length.

1. ALONINA RYGCHIFORMIS.

Fœm. *Ferruginea*; *palpi fulvi*; *antennæ rufescentes*; *fasciculus apicalis ex parte fulvus*; *pedes rufescentes, coxis femoribusque nigris, tibiis posticis nigris striga basali rufescente*; *alæ hyalino luridæ, anticæ apud costam rufescentes, apice purpurascences, fascia purpurascence rufo extus marginata.*

Female. Ferruginous. Palpi tawny. Antennæ reddish. Apical tuft partly tawny. Legs reddish; coxæ and femora black; hind tibiæ black, with a reddish streak near the base; spurs white. Wings hyaline, lurid. Fore wings reddish along the costa, purplish at the tips; discal band slender, purplish, with a reddish outer border. Length of the body $7\frac{1}{2}$ lines; of the wings 13 lines.

a. Port Natal. From M. Gueinzus' collection.

Genus 7. SANNINA.

Mas. Corpus sat robustum. Proboscis vix conspicua. Palpi graciles, arcuati, acuminati, subnudi, oblique ascendentes; articulus 3us gracillimus, 2i dimidio non brevior. Antennæ filiformes, simplices, sat graciles, apice acuminatæ, thorace vix duplo longiores. Abdomen thorace duplo longius. Pedes graciles; tibiæ posticæ longæ, validæ, pilosæ; metatarsi postici pilosi. Alæ angustæ, opacæ; posticæ basi limpidæ. *Fœm. ?*—Palpi paullo crassiores; articulus 3us brevior. Abdomen thorace triplo longius. Tibiæ posticæ graciliores et multo breviores; metatarsus posticus gracilis, non pilosus. Alæ posticæ limpidæ, basi opacæ.

Male. Body rather stout. Proboscis almost obsolete. Palpi slender, curved, acuminate, obliquely ascending, almost bare; third joint very slender, just half the length of the second. Antennæ filiform, simple, rather slender, acuminate at the tips, nearly twice the length of the thorax. Abdomen about twice the length of the thorax. Legs slender; hind tibiæ long and stout, somewhat pilose, as is also the hind metatarsus. Wings narrow, opaque, squameous. Hind wings limpid at the base. *Female ?*—Palpi a little

stouter than those of the male; third joint shorter and stouter. Antennæ like those of the male. Abdomen about thrice the length of the thorax. Hind tibiæ more slender and much shorter than those of the male; hind metatarsus slender, not pilose. Fore wings opaque. Hind wings limpid, opaque at the base.

1. SANNINA UROCERIFORMIS.

Mas. *Cyaneo-nigra*; caput postice rufescens; palpi rufescentes, apice supra nigræ; thorax subferrugineus; abdomen fascia lata ochracea; alæ virides, cyaneo purpureoque variæ, posticæ basi limpidæ. Fœm.?—Caput et palpi nigra; antennæ basi albidæ; abdomen rufo fasciatum; alæ posticæ limpidæ, basi cyaneo-nigræ.

Male. Bluish black. Head reddish behind. Palpi reddish, black towards the tips above. Thorax somewhat ferruginous. Abdomen with a broad orange band on the fourth segment. Wings metallic green, mingled with blue and purple; ciliæ cupreous. Hind wings limpid at the base. Length of the body 7 lines: of the wings 14 lines. *Female?*—Head and palpi black. Antennæ whitish at the base. Abdomen with a red band. Wings with black ciliæ. Hind wings limpid, bluish black at the base. Length of the body 9 lines; of the wings 14 lines.

a—c. United States. Presented by E. Doubleday, Esq.

Genus 8. TOOSA.

Mas. Corpus sat robustum. Proboscis longiuscula. Palpi longi, validi, porrecti; articulus 3us longi-conicus, 2i dimidio vix brevior. Antennæ simplices, subfiliformes, thorace multo longiores. Abdomen sublineare, thorace valde longius; fasciculus apicalis minimus. Pedes validi. Alæ opacæ, mediocriter latæ.

Male. Body moderately stout. Proboscis rather long. Palpi long, stout, porrect; third joint elongate-conical, nearly half the length of the second. Antennæ simple, almost filiform, much longer than the thorax. Abdomen almost linear, very much longer than the thorax; apical tuft very small. Legs stout. Wings moderately broad, wholly opaque and squameous. Fore wings with the first and second inferior veins contiguous at the base; third moderately remote from the second; fourth very remote from the third.

1. TOOSA GLAUCOPIFORMIS.

Mas. *Atra, squamulis aurato-viridibus; abdomen fascia subapicali ochracea; tibiæ posteriores ochraceæ, basi apiceque atræ; alæ posticæ cyanæ, apud costam purpureæ.*

Male. Deep black, with golden green spangles. Abdomen with an orange subapical band. Posterior tibiæ with the intermediate part orange. Hind wings blue, purple in front. Length of the body 6 lines; of the wings 14 lines.

a, b. Zoolu Country, South Africa. Presented by G. F. Angas, Esq.

Genus 9. SURA.

Mas. Corpus sat gracile. Proboscis fere obsoleta. Palpi longiusculi, ascendentes; articuli 1us et 2us subtus pilosi; 3us lanceolatus, 2i dimidio longior. Antennæ simplices, subfiliformes. Abdomen subcylindricum, thorace duplo longius. Pedes sat validi, pubescentes, non pilosi. Alæ opacæ, sat angustæ.

Male. Body rather slender. Proboscis almost obsolete. Palpi rather long, ascending; first and second joints somewhat pilose beneath; third lanceolate, more than half the length of the second. Antennæ simple, subfiliform. Abdomen nearly cylindrical, about twice the length of the thorax. Legs rather stout, pubescent, not pilose. Wings rather narrow, squameous, opaque. Fore wings with the first, second and third inferior veins near each other; fourth at some little distance from the third.

1. SURA XYLOCOPIFORMIS.

Mas. *Cyaneo-viridis; palpi et antennæ nigra; abdominis segmenta marginibus posticis purpureis; tibiæ calcaribus albidis; alæ posticæ macula basali limpida.*

Male. Dark bluish green. Palpi and antennæ black. Hind borders of the abdominal segments purple. Spurs of the tibiæ whitish. Wings like the body in colour. Hind wings with a limpid spot near the base. Length of the body $7\frac{1}{2}$ lines; of the wings 14 lines.

a. Port Natal. From Mr. Stevens' collection.

Genus 10. MELITTIA.

Corpus robustum. Proboscis elongata. Palpi mediocriter longi, subpilosi; articulus 3us lanceolatus, 2i dimidio vix brevior. Antennæ clavatæ aut subclavatæ, thorace paullo longiores. Abdomen oblanceolatum, thorace multo longius. Pedes validi, postici pilis longis densissime hirti. Alæ hyalinæ, sat angustæ; anticæ nonnunquam opacæ.

Melittia, *Hübner. Verz. Schmett.* 128.

Trochilium, p., *Westw.*

Ægeria, p., *Harris*

Sphinx, p., *Cram.; Fabr.; Gmel.*

Body rather stout. Proboscis elongated. Palpi moderately long, slightly pilose; third joint lanceolate, hardly half the length of the second. Antennæ subclavate or clavate, rather longer than the thorax. Abdomen oblanceolate, much longer than the thorax. Legs stout; hind legs most densely pilose, with long hairs, which extend nearly to the tips of the tarsi. Wings hyaline, rather narrow. Fore wings occasionally opaque; fourth inferior vein not very remote from the third, which is near to the first and to the second.

North America.

1. MELITTIA CETO.

Aurato-viridis; caput antice et apud oculos album; palpi lutei, basi albi; abdomen rufum maculis dorsalibus nigris, subtus luteum; pedes rufi, nigro alboque varii; alæ anticæ aurato-virides, posticæ limpidæ.

Trochilium Ceto, *Westw. Cab. Orient. Ent.* 62, pl. 30, f. 6.

a, b. United States. Presented by E. Doubleday, Esq.

c. United States. Presented by Dr. Schaum.

d. ———?

Var.? *Olivacea; palpi pallide flavi, fasciculo subapicali nigro; antennæ viridi-nigræ; abdomen ochraceum, fascia basali maculisque dorsalibus nigris; pedes postici pilis extus ochraceis intus nigris dense hirti; alæ anticæ olivaceo-fuscæ opacæ, posticæ limpidæ fusco marginatæ.*

Ægeria Cucurbitæ, *Harris, New England Farmer*, viii. 33; *Amer. Journ. Sci.* xxxvi.

Massachusetts.

2. MELITTIA? FLAVITIBIA.

Fuscescens; caput apud oculos flavum; antennæ nigræ; thorax flavo bivittatus; abdominis segmenta flavo marginata; tibiæ flavæ, posticæ pilis flavis dense vestitæ; alæ limpidæ, anticæ marginibus fasciaque abbreviata pallide fuscis.

Trochilium tibiale, Harris, Amer. Journ. Sci. xxxvi.

New Hampshire.

South America.

3. MELITTIA PULCHRIPIES.

Aurato-viridis; caput postice et apud oculos album; palpi albi; thorax pilis lateralibus posticis albidis; abdomen vittis duabus rufescentibus, ventre luteo; pedes nigri, albo fasciati; tibiæ extus rufo hirtæ; alæ posticæ limpidæ.

Golden green. Head white behind and about the eyes. Palpi mostly white. Thorax with whitish hairs behind on each side. Abdomen with a reddish stripe on each side; under side luteous. Legs black, with white bands; tibiæ with red hairs along the outer side. Fore wings golden green. Hind wings limpid. Length of the body 7 lines; of the wings 12 lines.

a. Venezuela. From Mr. Dyson's collection.

b. Parà. From Mr. Bates' collection.

4. MELITTIA CYANEIFERA.

Nigra; caput apud oculos testaceum; palpi testacei, apice nigri; antennæ apice ferrugineæ; thorax et abdomen fusco fulvescente tomentosa; abdomen subtus testaceum; pedes anteriores testaceo tomentosi, postici nigro dense hirti, pilis intus rufescentibus, tarsis apice albo pilosis; alæ limpidæ, marginibus fascia apiceque purpureo-nigris.

Black. Head testaceous about the eyes. Palpi testaceous, with black stripes. Antennæ ferruginous at the tips. Thorax and abdomen with slight brownish tawny tomentum. Abdomen testaceous beneath. Anterior legs partly covered with testaceous tomentum. Hind legs thickly clothed with black hairs; hairs on the inner side reddish; tips of the tarsi with white hairs. Wings limpid; cilia purplish. Fore wings with the borders, the band and the

tips purplish black. Length of the body 6—8 lines; of the wings 14—16 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

b. Brazil. From Mr. Stevens' collection.

South Africa.

5. MELITTIA TIBIALIS.

Obscure cinerea; pedes postici extus coccineo intus nigro densissime ciliati; alæ posticæ limpidæ.

Sphinx tibialis, Drury, *Exot. Ins.* ii. 49, pl. 28, f. 2. *App.*

Zygæna tibialis, Fabr. *Ent. Syst.* iii. 1, 404, 62.

Ægeria tibialis, Westw. *Ed. Drury*, ii. 53, pl. 28, f. 2.

Sierra Leone.

6. MELITTIA URSIPES.

Fulva; caput antice et apud oculos albidum; palpi supra basique albidii; antennæ testacæ; prothorax albido marginatus; thorax albido bilineatus; abdomen purpureo-nigrum, segmentorum marginibus posticis ventrequæ albidis; pedes anteriores testacei, postici pilis testaceis nigrisque dense hirti; alæ limpidæ, anticæ marginibus fascia apiceque nigricantibus fulvo marginatis.

Tawny. Head whitish about the eyes and in front. Palpi whitish above and at the base. Antennæ somewhat testaceous, with black stripes. Prothorax with whitish borders. Thorax with two whitish lines. Abdomen purplish black; hind borders of the segments whitish; under side mostly whitish. Anterior legs mostly testaceous. Hind legs thickly clothed with testaceous and with black hairs, the former chiefly on the femora. Wings limpid, with dark ciliæ, which have tawny borders; veins tawny. Fore wings with the borders, the band and the tips blackish with tawny margins; the band connected in front with the dark part of the tip. Length of the body 6 lines; of the wings 12 lines.

a. Port Natal. From M. Gueinzus' collection.

7. MELITTIA ANDRÆNIPENNIS.

Testacea; antennæ nigræ annulis albis, apice rufescentes; thorax nigro conspersus; abdomen nigrum, segmentorum marginibus posticis albidis; pedes postici pilis rufescentibus; alæ anticæ testaceæ, nigro conspersæ, fascia apiceque nigris; posticæ limpidæ.

Sesia Andrænipennis, Boisduval, MSS.

Testaceous. Antennæ black, with slender white wings, not longer than the thorax; tips reddish. Thorax with black flecks. Abdomen black, with a whitish band on the hind border of each segment. Hind legs partly clothed with pale reddish hairs. Wings with cupreous ciliæ. Fore wings testaceous, flecked with black; band and tips black. Hind wings limpid. Length of the body $4\frac{1}{2}$ lines; of the wings 9 lines.

a. Cape. From M. Dregé's collection.

8. MELITTIA BOMBYLIFORMIS.

Purpureo-nigra; caput apud oculos albidum; palpi albid, nigro vittati; antennæ subtus apices versus fulvæ, thorax fulvus aut purpureus; pectus album; abdomen fasciis albis, subtus flavescens; pedes anteriores flavi, postici pilis nigris fulvis et flavescentibus densissime hirti fasciculoque argenteo; alæ limpidæ, anticæ marginibus apice fasciæque nigro-purpureis.

Var. Abdomen fulvo bifasciatum, subtus album; pedes anteriores nigri, vittis fasciisque albis et cæruleis; postici pilis rufescentibus et albis præsertim vestiti.

Sphinx Bombyliformis, Cram. Pap. Exot. iv. 241, pl. 400, f. C.

Melittia Anthedoniformis, Hübn. Verz. Schmett. 128, 1374.

Trochilium Phorcus, Westw. Cab. Orient. Ent. 62, pl. 30, f. 7.

Purplish black. Head whitish about the eyes. Palpi whitish, striped with black. Antennæ tawny beneath towards the tips. Thorax tawny. Pectus white. Abdomen with a white band on the hind border of each segment; under side pale yellowish. Anterior legs pale yellow. Hind legs most thickly clothed to the tips with black hairs; hairs towards the base tawny and yellowish; a tuft of silvery white hairs beneath. Wings limpid, with purplish cilia; fore wings with the borders, the tips and the usual band blackish purple. Length of the body 7 lines; of the wings 14 lines.

Var. β. Anterior legs black, with pale bands. Hind legs with very few pale hairs.

Var. γ. Thorax purple. Prothorax with silvery white borders. Abdomen with two broad tawny bands; the first interrupted; under side white. Anterior legs black, with silvery white and blue stripes and bands; hind legs with more reddish and white than black hairs.

a. East Indies. From Archdeacon Clerk's collection.

b. North India. From Mr. James' collection.

c. North India. From Mr. Stevens' collection.

d. North India. From Capt. Parry's collection.

9. MELITTIA EURYTION.

Nigra; caput et thorax viridescens fulvo pilosa; caput apud oculos et antice albidum; palpi albi, nigro vittati; antennæ apice ferrugineæ; pectus album; abdominis segmenta argenteo marginata; pedes albo vittati et fasciati; postici densissime vestiti; alæ limpidæ, anticæ marginibus fascia apiceque cupreo-nigris albo conspersis.

Trochilium Eurytion, Westw. *Cab. Orient. Ent.* 62, pl. 30, f. 5

Black. Head and thorax with greenish tawny hairs. Head whitish about the eyes and in front. Palpi whitish, with black stripes. Antennæ with ferruginous tips. Pectus white. Abdomen with a silvery white band on the hind border of each segment. Legs with white stripes and bands. Hind legs most thickly clothed. Wings limpid, with cupreous-black cilia. Fore wings with the borders, the band, and the tips cupreous-black, the latter with a few white speckles. Length of the body 5—7 lines; of the wings 11—15 lines.

a. North India. From Mr. Stevens' collection.

b. Silhet. From Mr. Argent's collection.

c. North India. From Mr. James' collection.

10. MELITTIA ASTARTE.

Nigro-ænea; caput necnon abdomen basi apiceque ochracea; pedes ochracei, postici pilosissimi; alæ ochraceo ciliatæ, anticæ nigro-æneæ, posticæ limpidæ.

Trochilium Astarte, Westw. *Cab. Orient. Ent.* 61, pl. 30, f. 4.

Central India.

Genus 11. LENYRA.

Fœm. Color metallicus. Corpus robustum. Caput parvum. Proboscis brevis. Palpi porrecti, acuminati, caput sat superantes; articulus 3us lanceolatus, 2i dimidio brevior. Antennæ clavatæ, subcapitatæ, thorace paullo breviores. Thorax longiusculus. Abdomen cylindricum, thorace paullo longius. Pedes validi; postici dense fasciculati, calcaribus longis. Alæ angustæ, opacæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriori perobliquo.

Female. Colour metallic. Body stout. Head small. Proboscis short. Palpi porrect, acuminate, extending somewhat beyond the head; third joint lanceolate, less than half the length of the second. Antennæ clavate, almost capitate, a little shorter than the thorax, which is rather long. Abdomen cylindrical, not much longer than the thorax. Legs stout; hind legs thickly tufted; spurs long. Wings narrow, opaque. Fore wings straight in front, a little broader towards the tips, which are rounded, extremely oblique along the exterior border.

1. LENYRA ASHTAROTH.

Fœm. Cuprea; caput nigrum, antice subtusque cyaneum; antennæ nigræ; thoracis latera purpurea; prothorax et pectus viridia; abdomen viride, basi purpureum; pedes postici pilis interioribus ferrugineis, fasciculis exterioribus viridibus, fasciculo medio albo notato; alæ virides, anticæ vitta cuprea.

Trochilium Ashtaroth, Westw. MSS.

Female. Head black, dark blue in front and beneath. Antennæ and legs black. Thorax cupreous, purple on each side. Prothorax and pectus green. Abdomen green, purple towards the base. Hind legs with ferruginous hairs on the inner side, and with thick tufts of dark green hairs on the outer side; a few white-tipped hairs in the middle tuft. Wings green. Fore wings with a bright cupreous stripe, which widens outwards. Length of the body 9 lines; of the wings 18 lines.

a. Silhet. From Mr. Sowerby's collection.

Genus 12. NINIA.

Corpus gracile. Palpi elongati. Antennæ graciles, setaceæ, longiusculæ. Abdomen elongatum, apice fasciculatum. Pedes graciles, longiusculi; tibiæ posticæ ciliatæ. Alæ opacæ, metallicolores.

Sphinx, p., *Drury*.

Ægeria? *Westw.*

Body slender. Palpi elongated. Antennæ slender, setaceous, rather long. Abdomen elongated, tufted at the tip. Legs slender, rather long; hind tibiæ tufted. Wings opaque, metallic-coloured.

1. NINIA PLUMIPES.

Nigro-cyanea; abdominis segmenta posteriora ochraceo marginata; tibiæ tarsique ochracea; tibiæ posticæ ciliatæ.

Sphinx plumipes, *Drury, Exot. Ins.* iii. 3, pl. 2, f. 3. *App.*

Ægeria? plumipes, *Westw. Ed. Drury*, iii. 3, pl. 2, f. 3.

Sierra Leone.

Genus 13. THYRIS.

Corpus validum. Proboscis distincta. Palpi validi, caput sat superantes; articulus 3us longi-conicus. Antennæ simplices, setaceæ, thorace valde longiores. Abdomen alas posticas triente superans. Pedes graciles; tibiæ posticæ calcaribus quatuor longissimis. Alæ amplæ, maculis vitreis; anticæ apud costam rectæ, apice rotundatæ, margine exteriori sat obliquo; posticæ margine exteriori denticulato.

Phalæna, p., *Scopoli*.

Sphinx, p., *Fabr.*; *Wien. Verz.*; *Gmel.*; *Hübner*.

Sesia, p., *Schrank*.

Thyris, *Ochs.*; *Hübner*.; *God.*; *Boisd.*; *Chenu*.

Body stout. Proboscis distinct. Palpi stout, extending some distance beyond the head; third joint elongate-conical, more or less than half the length of the second. Antennæ simple, setaceous, very much longer than the thorax. Abdomen extending for one-third of its length beyond the hind wings. Legs slender; hind tibiæ with four very long spurs. Wings somewhat ample, with vitreous spots. Fore wings straight in front, rounded at the tips, somewhat oblique along the exterior border; first, second and

third inferior veins approximate at the base; fourth more remote.
Hind wings with the exterior margin denticulated

1. THYRIS FENESTRINA.

Alæ denticulatæ, aureo-fuscescentes, punctis rufis, maculisque duabus fenestratis.

Thyris fenestrina, Hübn. *Sphing.* 16; Verz. Schmett. 130, 1399.
Ochs. Schmett. von Eur. ii. 115, 1. God. Pap. de France
Crép. iii. 123, pl. 23, f. 1. Treit. Hulf. Schmett. 151. Herr:-
Schæff. Eur. Schmett. iii. *Sphing.* pl. 4, f. 11. Boisd. Mon.
Zyg. 16, pl. 1, f. 4; Ind. Méth. ed. 2, 29; Evers. Faun. Volg.
Ural. 99, 1. Croch. Ed. Règ. Anim. Atlas, Ins. pl. 147, f. 4.

———, Engr. Pap. d'Eur. iii. 122, pl. 122, f. 167, a, b.

Sesia Marica? Cyril. Ins. Ent. Neap. i. pl. 12, f. 6.

Phalæna fenestrella, Scop. Ent. Carn. 217, 538.

Sphinx fenestrina, Fabr. Sp. Ins. ii. 1407; Mant. Ins. ii. 92, 7;
Ent. Syst. iii. 1, 357, 8. Wien. Verz. Schmett. 448. Fuessl.
Ent. Mag. i. pl. 1. Esp. Schmett. ii. 179, pl. 23, f. 1. Gmel.
ed. Syst. Nat. i. 5, 2372, 52. Borkh. Eur. Schmett. 113, 153,
Rossi, Faun. Etr. ii. 163, 1057; ed. Illig. 262. Fuessl. A.
Mag. i. 112, 134, pl. 1, f. D; N. Mag. ii. 2, 204, 1; ii. 4, 372.
Illig. N. Ausg. dess. i. 31, 8. Lang. Verz. ii. 74, 594, 595.

Sesia fenestrata, Schrank, Faun. Boic. ii. 1, 235, 1402.

Sphinx pyralidiformis, Hübn. *Sphing.* 86, 1, pl. 3, f. 16.

Thyris fenestrata, Chenu, Enc. d'Hist. Nat. Pap. 238, f. 408.

France. Belgium. Germany. Switzerland. Italy. Sicily. Spain.
North America.

a—e. Europe. From M. Becker's collection.

2. THYRIS VITRINA.

Alæ subdentatæ fuscae, maculis rubris; anticæ macula minima, posticæ lata, fenestrata.

Thyris vitrina, Boisd. Zyg. 19, pl. 1, f. 5; Ind. Méth. 29; ed. 2.
Chenu, Enc. d'Hist. Nat. Pap. 238, f. 409.

Andalusia? North America.

a. Canada. From Mr. Stevens' collection.

3. THYRIS LUGUBRIS.

Cupreo-nigra; caput albo bimaculatum; palpi subtus albi; thorax fascia antica maculisque duabus lateralibus albis; abdomen maculis duabus anticis dorsalibus punctisque duobus posticis lateralibus albis; pedes albo fasciati; alæ fascia, guttisque punctisque nonnullis vitreis.

Thyris lugubris, Boisd. Spec. Gén. Lép. i. pl. 14, f. 11.

a—d. St. John's Bluff, East Florida. Presented by E. Doubleday, Esq.

4. THYRIS SEPULCHRALIS.

Thyris sepulchralis, Boisd. Guér. Icon. Règ. Anim. Ins. pl. 84, bis f. 1.

Thyris lugubris, var.?

5. THYRIS MACULATA.

Fusco-nigra; palpi subtus albi; abdominis segmenta marginibus posticis albis; pedes albo-cincti; alæ maculis quatuor albo hyalinis, marginibus exterioribus excavatis albis.

Thyris maculata, Harris, Cat.; Descr. Cat. N. Amer. Sphing. (Amer. Journ. Sci. and Arts, xxxvi. 2) 33.

"Brownish black, sprinkled with rust-yellow dots; hind margins of the wings deeply scalloped, with the edges of the indentations white; each of the wings with a transparent white spot, which in the fore wings is nearly oval and slightly narrowed in the middle, in the hind wings larger, kidney-shaped, and almost divided in two; palpi beneath, a spot before the anterior coxæ, the tips of the tarsal joints above, and the hind edges of the last three or four abdominal segments white."

Massachusetts.

Genus 14. THYRETES.

Corpus longiusculum, sat angustum. Caput et thorax pilosa. Proboscis brevis. Palpi breves, graciles; articulus 3us lanceolatus. Antennæ corporis dimidio multo longiores. Abdomen pubescens, alas posticas dimidio superans. Pedes longiusculi; tibiæ posticæ calcaribus duobus apicalibus minutis. Alæ longæ, angustæ, ex parte limpidæ; anticæ apud costam rectæ, apice rotundatæ, margine

exteriore perobliquo. *Mas.*—Antennæ sat late pectinatæ. *Fæm.*—Antennæ simplices.

Sphinx adscita, p., *Cramer*.

Thyretes, *Boisd. MSS.*

Body rather long and slender. Head and thorax pilose. Proboscis short. Palpi short, slender; third joint lanceolate. Antennæ much more than half the length of the body. Abdomen pubescent, extending for half its length beyond the hind wings. Legs rather long; hind tibiæ with two minute apical spurs. Wings long and narrow, partly limpid. Fore wings straight along the costa, rounded at the tips; exterior border very oblique; second inferior vein as far from the third as from the first; third more than four times further from the fourth than from the second. *Male.*—Antennæ moderately deeply pectinated. *Female.*—Antennæ simple.

1. THYRETES HIPOTES.

Alba; thorax fusco bivittatus aut disco fusco; abdomen e maculis luteis bivittatum; alæ anticæ fuscae, vitta discali maculari limpida; posticæ limpidae, margine interrupte fusco.

Sphinx adscita Hipotes, *Cram. Pap. Exot.* iii. 166, pl. 286, f. A.

a, b. South Africa. From Mr. Argent's collection.

c. South Africa. From M. Becker's collection.

d. Port Natal. From M. Gueinzus' collection.

e. Cape. From M. Dregé's collection.

f. Port Natal. From Dr. Krauss' collection.

Genus 15. ARNA.

Mas et fæm. Corpus gracillimum. Proboscis brevis. Palpi breves, graciles, caput vix superantes. Antennæ setaceæ, simplices, gracillimæ, thorace duplo longiores. Abdomen alas posticas dimidio superans. Pedes longiusculi, gracillimi; tibiæ posticæ calcaribus quatuor longis. Alæ angustæ, maculis vitreis; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo. *Mas.*—Abdomen apice fasciculatum.

Male and female. Body very slender. Proboscis short. Palpi short, slender, hardly extending beyond the head. Antennæ setaceous, simple, very slender, full twice the length of the thorax. Abdomen extending for about half its length beyond the hind wings. Legs rather long, very slender; hind tibiæ with four long spurs.

Wings narrow, with vitreous spots. Fore wings straight in front, rounded at the tips, very oblique along the exterior border. Hind wings not denticulated. *Male*.—Abdomen with a tuft at the tip.

This genus connects the *Ægeriidae* with the *Pyrallites*, and much resembles *Desmia* (Westw. Mag. Zool. 1831), which seems to be very nearly allied to the *Ægeriidae*. See *Botys bicolor*, Swainson, Zool. Illustr. ii. pl. 77 and Drury, Ill. Exot. Ins. ii. 9, pl. 6, f. 1.

1. ARNA EXTREMA.

Mas et fœm. *Cupreo-nigra*; caput apud oculos album; palpi subtus albi; antennæ apice albæ; abdomen albo bifasciatum; pedes albo fasciati; alæ maculis duabus vitreis guttoque apicali alba.

Male and female. Cupreous-black. Head white about the eyes. Palpi white beneath. Antennæ with white tips. Abdomen with a white band at the base, and another a little beyond the middle. Legs with white bands. Each wing with two white hyaline discal spots and a white apical dot. Length of the body 3 lines; of the wings 7 lines.

a, b. Parâ. From Mr. Bates' collection.

Tribe SPHINGII.

See p. 2, 1st Series.

Fam. SPHINGIDÆ.

A. Abdomen apice fasciculatum.

A. Alæ anticæ margine exteriori integro.

A. Alæ hyalinæ. - - - - - 1. *SESIA*, Fabr.

B. Alæ opacæ, vestitæ. - - - - - 2. *MACROGLOSSA*, Ochs.

B. Alæ anticæ margine exteriori exciso.

A. Thorax non cristatus.

a. Antennæ clavatæ. - - - - - 3. *PROSERPINUS*, Hübn.

b. Antennæ non clavatæ.

i. Alæ anticæ argenteo non signatæ.

* Caput non conicum. - - - - - 4. *THYREUS*, Swains.

** Caput conicum.

† Alæ anticæ margine interiori vix exciso.

‡ Alæ margine vix indentato. 5. *PERIGONIA*, Boisd.

‡‡ Alæ margine sat indentato. 6. *TEMNORA*, Walk.

- †† Alæ anticæ margine interiore sat exciso.
7. *LOPHURA*, *Boisd.*
- ii. Alæ anticæ argenteo signatæ. 8. *CALLIOMMA*, *Boisd.*
- B. Thorax cristatus. - - - 9. *ENYO*, *Hübner*.
- B. Abdomen non apice fasciculatum.
- A. Alæ longissimæ.
- a. Abdomen sat validum. - - - 11. *AMBULYX*, *Boisd.*
- B. Abdomen crassum. - - - 12. *CALYMNIA*, *Boisd.*
- B. Alæ non longissimæ.
- a. Proboscis longa aut longissima.
- a. Abdomen longum aut sat longum.
- i. Abdomen argenteo notatum. 13. *BASIOTHIA*, *Walk.*
- ii. Abdomen vittis argenteis aut auratis aut pallidis.
- * Alæ anticæ margine exteriori recto.
- † Alæ angustæ. - 14. *CHÆROCAMPA*, *Dup.*
- †† Alæ latiusculæ. - - 15. *ELEBIA*, *Walk.*
- ** Alæ anticæ margine exteriori undulato aut indentato.
- † Alæ angustæ.
- ‡ Tibiæ posticæ calcaribus longis.
- § Alæ margine exteriori denticulato. 16. *PERGESIA*, *Walk.*
- §§ Alæ margine exteriori integro. 17. *PANACRA*, *Walk.*
- †† Tibiæ posticæ calcaribus breviusculis. 18. *UNZELA*, *Wulk.*
- †† Alæ latiusculæ. - 19. *DIODOSIDA*, *Walk.*
- iii. Abdomen maculis aut vittis nullis micantibus.
- * Abdomen obconicum, sæpissime vix longum.
- † Caput mediocre.
- ‡ Alæ anticæ margine exteriori non undulato. 20. *DEILEPHILA*, *Ochs.*
- †† Alæ anticæ margine exteriori denticulato. 22. *DARAPSA*, *Walk.*
- †† Caput magnum.
- ‡ Alæ anticæ non denticulato.
- § Antennæ distincte hamatæ. 21. *PHILAMPELUS*, *Harris.*
- §§ Antennæ vix hamatæ. 23. *DAPHNIS*, *Hübner.*
- ††† Caput maximum.
- ‡ Statura maxima. - 24. *PACHYLIA*, *Boisd.*
- †† Statura mediocris.

- § Alæ anticæ non hamatæ. 25. ZONILIA, *Boisd.*
- §§ Alæ anticæ hamatæ. 26. ORYBA, *Walk.*
- ** Abdomen longum, cylindricum, aut cylindrico-conicum.
- † Proboscis longissima. Abdomen crassum, perlongum. Alæ longæ, latiusculæ; anticæ sæpissime lichenæ. 27. MACROSILA, *Boisd.*
- †† Proboscis longiuscula aut longissima. Abdomen mediocriter longum et crassum. Alæ longæ, angustæ. - 28. SPHINX, *Linn.*
- ††† Proboscis mediocris. Abdomen mediocriter longum et crassum. Alæ angustæ, vix longæ. 29. ANCERYX, *Boisd.*
- †††† Abdomen longiusculum. Alæ breviusculæ, latiusculæ. - - 30. DOLBA, *Walk.*
- ††††† Abdomen sat gracile, mediocriter longum. Alæ longiusculæ, latiusculæ. 31. DAREMMA, *Walk.*
- †††††† Alæ breves. - 32. CENOSANDA, *Walk.*
- ††††††† Caput parvum. Proboscis mediocriter longa. Antennæ graciles. Abdomen lineare, sat gracile. Pedes graciles. Alæ sat angustæ, non longæ. - - 33. LAPARA, *Walk.*
- b. Abdomen breve. - - - 10. CIZARA, *Walk.*
- B. Proboscis brevissima aut nulla.
- a. Palpi non porrecti.
- i. Caput magnum. - - 34. ACHERONTIA, *Ochs.*
- ii. Caput mediocre aut parvum.
- * Alæ anticæ margine exteriori integro.
- † Alæ longæ.
- ‡ Alæ anticæ margine interiori non inciso. 35. BASIANA, *Walk.*
- ‡‡ Alæ anticæ margine interiori inciso. 36. DAPHNUSA, *Walk.*
- ** Alæ anticæ margine interiori dentato aut inciso. 37. SMERINTHUS, *Ochs.*
- b. Palpi porrecti, caput superantes.
- i. Alæ latæ. - - - 38. CÆQUOSA, *Walk.*
- ii. Alæ sat angustæ. - - 39. CERATOMIA, *Harr.*

Genus 1. SESIA.

Corpus robustum, fusiforme, pilosum. Caput plus minusve latum. Proboscis longa. Palpi brevissimi. Antennæ subclavatæ, apice attenuatæ, thorace paullo longiores. Abdomen apice fasciculatum, thorace plus minusve longius. Pedes longiusculi, sat graciles; tibiæ posticæ calcaribus quatuor longis. Alæ vitreæ; anticæ apud costam rectæ, apice subacuminatæ, margine exteriori perobliquo. *Mas.*—Antennæ subtus serrato setosæ.

Sphinx, p., *Linn.*

Sesia, *Fabr. Syst. Ent.* 547; *Steph.*

Macroglossa, p., *Ochs.*; *Boisd.*

Hemaris, *Dalm. Sp. S.* 215.

Cephonodes, *Hübner. p., Verz. Schmett.* 131.

Body stout, fusiform, pilose. Head more or less broad. Proboscis long. Palpi very short. Antennæ subclavate, attenuated at the tips, a little longer than the thorax. Abdomen tufted at the tip, more or less longer than the thorax. Legs rather long and slender; hind tibiæ with four long spurs. Wings wholly or partly vitreous. Fore wings straight along the costa, slightly acuminate at the tips, extremely oblique along the exterior border; second inferior vein hardly nearer to the first than to the third; third thrice or four times further from the fourth than from the second. Hind wings slightly notched by the hind end of the exterior border. *Male.*—Antennæ serrate-setose beneath.

Europe.

1. SESIA BOMBYLIFORMIS.

Cervina, subtus testacea; abdomen fascia lata rubra, fasciculis lateralibus posticis testaceis, apicalibus nigris; alæ limpidae, basi cervinæ, marginibus et anticarum apicibus late rubris, anticæ striga discali rubra.

———, *Engr. Pap. d'Eur.* iii. 24, pl. 89, f. 117; pl. 90, f. 117. *Röes. Ins. Bel.* iii. pl. 38, f. 2, 3; iv. pl. 34, f. 1, 2, 4. *Geoffr. Ins. Par.* ii. 82, 5.

Sphinx Fuciformis, *Wien. Verz.* 44, 1. *Esp. Schmett.* ii. 118, pl. 14, f. 1. *Bork. Eur. Schmett.* ii. 52, 133, 176, 1; *Rhein. Mag.* i. 313, 137. *Sulz. Ins.* 36, pl. 15, f. 90. *Donov. Nat. Hist. Brit. Ins.* iii. pl. 87. *Hübner. Sphing.* 93, 2, pl. 9, f. 55; *Larv. Lep.* ii. *Sphing.* iii. *Leg. A, a, f. 2, a, b.* *Fuessl. Schwarz, Ins.*

- 33, 623; *A. Mag.* ii. 267. *Schr. Faun. Boic.* ii. 1, 230, 1395.
Lang. Verz. ii. 71, 576, 578. *Schwarz, Raup.* 53, 201, 360,
 493. *God. Hist. Nat. Lép. Fr.* iii. 58, pl. 19, f. 4.
Sphinx variegata, *Manip. Ins. Taurin.* 193.
Sesia Fuciformis, *Fabr. Ent. Syst.* iii. 1, 381, 11. *Panz. Faun.*
Ins. Germ. 69, 23. *Rossi, Faun. Etr.* ii. 164, 1059. *Westw.*
& H. Brit. M. i. 26, pl. 6, f. 7. *Steph. Cat. Brit. Lep.* 30, 1.
Sphinx Bombylifomis, *Ochs. Schmett. von. Eur.* ii. 189, 2.
Cephonodes Bombylifomis, *Hübner. Verz. Schmett.* 131, 1403.
Sesia Bombylifomis, *Steph. Ill. Brit. Ent. Haust.* i. 135, 2.
Macroglossa Bombylifomis, *Boisd. Ind. Méth.* 45, 369.
Var. Sesia Milesiformis, *Dahl.*; *Treit.*
a—g. England. From Mr. Stephens' collection.
h, i. England.
j, k. Europe. From M. Becker's collection.
l. Europe. From Mr. Milne's collection.

2. SESIA FUCIFORMIS.

- Cervina, subtus testacea; abdomen fascia interrupta fasciculique
 apicalis lateribus nigris, disco postico luteo; alæ limpidæ,
 marginibus et anticarum apicibus anguste fuscis.*
 ———, *Bradl. Natur.* 26, f. 1, B. *Röes. Ins. Bel.* iii. 231,
 pl. 38; iv. pl. 34, f. 1—4. *Deg. Ins.* ii. 1, 162? *Geoff. Ins.*
Par. ii. 82, 4. *Sulz. Ins.* pl. 15, f. 90. *Poda, Ins.* 82, 9, pl.
 2, f. 6. *Schæff. Icon.* pl. 16, f. 1; *Elem.* pl. 116, f. 3. *Engr.*
Pap. d'Eur. iii. 24, pl. 89, f. 117, e, f.
Sphinx Fuciformis, *Linn. Syst. Nat.* i. 2, 803, 28; *Faun. Suec.* 289,
 1092. *Scop. Ent. Carn.* 188, 475. *Fabr. Sp. Ins.* ii. 156, 11;
Mant. Ins. ii. 99, 11; *Hübner. Berl. Mag.* ii. 184, 13; 194, 5.
Wien. Verz. Schmett. 44, 1. *Esp. Schmett.* ii. pl. 14. *Gmel.*
ed. Syst. Nat. i. 5, 2388, 28. *Illig. N. Ausg. dess.* i. 22, 1;
Mag. ii. 37. *Müll. Zool. Dan.* 116, 1342; *Faun. Fridr.* 37,
 345. *Fuessl. N. Mag.* ii. 2, 200, 1. *Ochs. Schmett. von Eur.*
 ii. 185, 1.
Var. β. Sphinx Tityus, *Linn. Syst. Nat. ed.* 10, 493, 24.
Sesia Bombylifomis, *Fabr. Ent. Syst.* iii. 1, 382, 12. *Vieweg, Tab.*
Verz. i. 13, 2.
Sphinx Bombylifomis, *God. Hist. Nat. Lép. Fr.* iii. 61, pl. 19, f. 5.

Sphinx Bombyliformis, *Esp. Schmett.* ii. 180, pl. 23. *Suppl.* 5, f. 2. *Hübner. Sphing.* 93, 1, pl. 9, f. 56; *Larv. Lep.* ii. *Sphing.* iii. *Leg. A.* a, p. 1, a. *Bork. Eur. Schmett.* ii. 55, 134, 176; *Rhein. Mag.* i. 314, 138. *Panz. Faun. Germ.* 69, 24. *Naturf.* xxviii. 80. *Fuessl. N. Mag.* iii. 2, 153, 88. *Schr. Faun. Boic.* ii. 1, 231, 1396. *Lang. Verz.* ii. 72, 579, 580. *Schwarz, Raup.* 635.

Sesia Fuciformis, *Schæff. Icon. Nom. Panz.* 21. *Steph. Ill. Brit. Ent. Haust.* i. 134, 1.

Macroglossa Fuciformis, *Childr. Ed. Ochs.* 29, 1. *Boisd. Ind. Méth.* 45, 368.

Sesia Bombyliformis, *Curt. Brit. Ent.* i. pl. 40.

Cephonodes Fuciformis, *Hübner. Verz. Schmett.* 131, 1404.

a—i. England. From Mr. Stephens' collection.

j, k. England.

l—o. Europe. From M. Becker's collection.

p—r. France. From Mr. Milne's collection.

North America.

The North American *Sesiæ* are the counterpart of the two European species; *S. diffinis* represents *S. Bombyliformis*, and the other three species have much likeness to *S. Fuciformis*.

3. SESIA DIFFINIS.

Cervina; *testaceo bivittata*; *caput apud antennis et subtus albidum, fascia antica nigra*; *abdomen ex maxima parte fuscum, fasciculis duobus lateralibus subapicalibus testaceis*; *alæ limpidæ basi et anticarum marginibus apicibusque anguste rubro-fuscis.*

Sphinx Fusiformis, *Abbot & Smith, Nat. Hist. Lep. Ins. Georg.* i. pl. 43.

Macroglossa diffinis, *Boisd. Hist. Nat. Ins. Lep.* i. pl. 15, f. 2.

Sesia diffinis, *Harris, Amer. Journ. Sci.* xxxvi.

a. St. Martin's Falls, Albany River, Hudson's Bay. Presented by G. Barnston, Esq.

b, c. United States. Presented by E. Doubleday, Esq.

d. Orilla, West Canada. From Mr. Bush's collection.

4. *SESIA RUFICAUDIS*.

Cervina; caput apud antennæ et subtus albidum, fascia antica fusca; abdomen rubrum, basi cervinum, marginibus posticis nigris, maculis lateralibus testaceis; fasciculus apicalis rufus, pilis lateralibus nigris; alæ limpidæ, basi marginibus et anticarum apicibus late rubris, anticæ striga discali nigricante.

Var. β . Abdomen fascia postica lata interrupta cervina.

Sesia ruficaudis, Kirby, *Faun. Bor. Amer.* iv. 303.

This is probably a mere variety of *S. Thysbe*.

Fawn-colour. Head whitish about the antennæ and beneath, with a brown band in front. Pectus testaceous. Abdomen deep red, fawn-colour at the base, with testaceous spots along each side; hind borders of the segments black; apical tuft red, with some black hairs on each side. Wings limpid, deep red at the base, and with broad deep red borders. Fore wings deep red at the tips, and with a blackish discal streak. Length of the body 9—12 lines; of the wings 18—24 lines.

a. United States.

b. Trenton Falls, New York. Presented by E. Doubleday, Esq.

c. Orilla, West Canada. From Mr. Bush's collection.

5. *SESIA THYSBE*.

Cervina; caput subtus et pectus testacea; caput fascia antica nigra; abdomen triente media vittaque posteriore rubris, maculis lateralibus testaceis; fasciculus apicalis rufus, triente laterali utrinque supra nigra; alæ limpidæ, basi marginibusque late rubris, anticæ basi cervino suffusæ, apicibus strigae discali rubris.

Sphinx Thysbe, *Fabr. Syst. Ent.* 548, 4; *Sp. Ins.* ii. 155, 10; *Mant. Ins.* ii. 99, 10; *Gmel. ed. Syst. Nat.* i. 5, 2388, 100.

Sesia Thysbe, *Fabr. Ent. Syst.* iii. 1, 301, 10.

Sphinx Pelasgus, *Cram. Pap. Exot.* iii. 93, pl. 248, f. B.

Sesia Pelasgus, *Harris, Amer. Journ. Sci.* xxxvi.

Sesia Cimbiciformis, *Steph. Ill. Brit. Ent. Haust.* i. 135, 3.

a, b. Massachusetts. Presented by E. Doubleday, Esq.

c, d. United States. From Mr. Milne's collection.

e. ———?

6. *SESIA FUSCICAUDIS*.

Pallide cervina ; caput subtus et pectus albido-testacea ; abdomen rubrum, basi cervinum albo marginatum, maculis lateralibus testaceis ; fasciculus apicalis ruber, lateribus nigro-fuscis ; alæ limpidæ, basi marginibusque latissimis rubris ; anticæ basi cervinæ, apice rubræ.

Macroglossa fuscicaudis, Boisd. MSS.

Light fawn-colour. Head beneath and pectus whitish testaceous. Palpi prominent. Abdomen deep red ; basal part light fawn-colour, bordered with white ; a row of testaceous spots along each side. Apical tuft blackish brown ; middle third part deep red. Wings limpid, deep red towards the base, and with very broad deep red borders. Fore wings fawn-colour at the base, deep red towards the tips. Length of the body 13—14 lines ; of the wings 25—27 lines.

a, b. Georgia. From Mr. Abbot's collection.

Asia.

S. Saundersii and *S. radians* resemble the two European species ; *S. Hylas* and *S. Cunninghami* form a third type.

7. *SESIA SAUNDERSII*.

Cervina aut viridescens, subtus testaceo-alba ; caput antice nigro fasciatum ; abdomen fascia rubra, apicem versus luteum, maculis lateralibus testaceis ; fasciculus apicalis rufo nigroque hirtus, apud medium luteo hirtus ; alæ limpidæ, basi marginibus angustis et anticarum apicibus nigro-rufis.

Macroglossa Saundersii, Boisd. MSS.

Fawn-colour or greenish, testaceous white beneath. Head with a slight black band in front. Abdomen with a deep red band beyond the middle, luteous towards the tip, with pale testaceous spots along each side. Apical tuft with luteous hairs in the middle, and with mingled black and red hairs on each side and beneath. Wings limpid, blackish red at the base, and with narrow blackish red borders, covered with fawn-coloured or greenish tomentum at the base, and more slightly so along the costa of the fore wings,

which have blackish red tips. Length of the body 11—12 lines; of the wings 20—22 lines.

a. North India. From Mr. Stevens' collection.

b. North India. Presented by E. Doubleday, Esq.

8. SESIA RADIANS.

Cervina, subtus testacea; caput nigro fasciatum, apud oculos album; abdomen apud medium nigro-rufum, fasciis duabus subapicalibus luteo-testaceis; fasciculus apicalis niger, apud medium testaceus; alæ limpidæ, marginibus radiisque et anticarum apicibus nigro-rufis.

Fawn-colour, pale testaceous beneath. Head with many black hairs above, white about the eyes, and with a black band in front. Abdomen blackish red about the middle; two subapical bands luteous, pale testaceous on each side. Apical tuft black, fawn-colour in the middle above. Wings limpid, dark red at the base, and with broad dark red borders, with fawn-coloured tomentum at the base and along the costa; the dark red hue emitting a ray in each areolet towards the disk. Fore wings with dark red tips. Length of the body 11 lines; of the wings 20 lines.

a. Shanghai, North China. From Mr. Fortune's collection.

9. SESIA HYLAS.

Viridis, subtus alba; abdomen fascia subtus dilatata rubra, maculis lateralibus et ventralibus albis; alæ limpidæ, nigro submarginatæ, basi viridi-nigræ, anticæ apice nigræ.

Sphinx Hylas, *Linn. Mant.* i. 539. *Fab. Sp. Ins.* ii. 154, 4; *Mant. Ins.* ii. 99, 4; *Gmel. ed. Syst. Nat.* i. 5, 2387, 95.

Sphinx Picus, *Cram. Pap. Exot.* ii. 83, pl. 148, f. B.

Sesia Hylas, *Fabr. Ent. Syst.* iii. 1, 379, 3.

Cephonodes Hylas, *Hübner. Verz. Schmett.* 131, 1402.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

b. Congo. Presented by A. Curror, Esq.

c. West Africa. From Mr. Argent's collection.

d. Zoolu Country. Presented by G. F. Angas, Esq.

e, f. Ceylon. From the Rev. J. Wenham's collection.

g. North India. From Mr. James' collection.

h, i. Port Natal. From M. Gueinzus' collection.

j. Penang. Presented by Sir W. Norris.

- k. Moulmein. From Archdeacon Clerk's collection.
 l. Madras. Presented by W. Elliot, Esq.
 m, n. China. Presented by J. Reeves, Esq.
 o. North India. From Mr. Stevens' collection.
 p, q. Hong Kong. From Mr. Stevens' collection.
 r. Moreton Bay, Australia. Presented by J. Gibbon, Esq.

10. *SESIA CUNNINGHAMI*.

Viridis, subtus testaceo-alba; abdomen fascia rufa, subtus rufum maculis albis; fasciculus apicalis subtus niger; alæ limpidae, viridi submarginatae.

Macroglossa Cunninghami, *Boisd. MSS.*

Probably a variety of *S. Hylas*.

- a, b. Australia. Presented by J. Hunter, Esq.

Genus 2. *MACROGLOSSA*.

Corpus robustum, fusiforme, pilosum, subdepressum. Caput sæpissime latum. Palpi brevissimi. Proboscis longissima. Antennæ subclavatae, apice attenuatae. Abdomen apice fasciculatum, thorace multo longius. Pedes sat graciles; tibiæ posticæ calcariibus quatuor longis. Alæ opacæ, plus minusve angustæ; anticæ apud costam rectæ, apice rotundatae aut subacuminatae, margine exteriori perobliquo. *Mas.*—Antennæ subtus serrato setosæ, thorace paullo longiores. *Fæm.*—Antennæ thorace non longiores.

Sphinx, p., *Linn.*; *Fabr.*; *Gmel.*; *Scop.*; *Esp.*; *Hübner.*; *Schr.*; *Ochs.*

Sesia, p., *Fabr. Ent. Syst.*; *Rossi.*

Psithyros et *Cephonodes*, *Hübner. Verz. Schmett.* 131, 132.

Macroglossum, *Scop. Ins. Carn.* 414.

Macroglossa, *Ochs.*; *Boisd.*; *Steph.*; *Curt.*

Body stout, fusiform, pilose, somewhat depressed. Head generally broad. Palpi very short. Proboscis very long. Antennæ subclavate, attenuated at the tips. Abdomen tufted at the tip, much longer than the thorax. Legs moderately slender; hind tibiæ with four long spurs. Wings opaque, more or less narrow. Fore wings straight in front, rounded or slightly acuminate at the tips, very or extremely oblique along the exterior border; inferior veins from the first to the fourth successively more remote from

each other. *Male*.—Antennæ serrate-setose beneath, a little longer than the thorax. *Female*.—Antennæ not longer than the thorax.

Europe.

1. MACROGLOSSA STELLATARUM.

Cinereo-fusca; caput subtus et pectus alba; abdomen maculis lateralibus testaceis albisque; alæ posticæ luteæ, basi margineque fuscescentibus.

———, *Rai, Ins.* 133, 1. *Bradl. Natur.* pl. 26, f. 1, A; *Göed. Ins.* ii. 41, 14; *Merian, Ins. Enc.* ii. 31, pl. 29. *Réaum. Ins.* i. pl. 12, f. 5, 6. *Roës. Ins. Bel.* i. *Phal.* i. 57, pl. 8. *Engr. Pap. d'Eur.* iii. 21, pl. 89, f. 116; pl. 90, f. 116. *Geoffr. Ins. Par.* ii. 83, 6, pl. 11, f. 5. *Schæff. Elem.* pl. 116, f. 3; *Icon.* pl. 16, f. 33. *Deg. Ins.* ii. 1, 162, 1. *Sepp. Ins.* pl. 1, f. 1—11.

Sphinx Stellatarum, *Linn. Syst. Nat.* i. 2, 803, 27. *Faun. Suec.* 288, 1091. *Scop. Ent. Carn.* 187, 474. *Fabr. Sp. Ins.* ii. 154, 6; *Mant. Ins.* ii. 99, 6. *Poda, Ins.* 82, 8. *Wien. Verz. Schmett.* 43, 2. *Esp. Schmett.* ii. 114, pl. 13; 204, pl. 28, f. 3; 232, pl. 36, f. 5, 6. *Gmel. ed. Syst. Nat.* i. 5, 2387, 27. *Hübner. Sphing.* 94, 4, pl. 9, f. 57; *Larv. Lep.* ii. *Sphing.* iii. *Leg.* A, b, c, f. 1, a, b. *Illig. N. Ausg. dess.* i. 20, 2. *Schæff. Icon. Nom. Panz.* 22. *Bork. Eur. Schmett.* ii. 56, 134, 177, 3; *Rhein. Mag.* i. 314, 139. *Hübner. Berl. Mag.* ii. 2, 182, 11. *Fuessl. Schw. Ins.* 33, 622. *Schr. Faun. Boic.* ii. 1, 229, 1394. *Lang. Verz.* ii. 71, 574, 575, *Schwarz, Raup.* 358, 635. *Ochs. Schmett. von Eur.* ii. 193, 4. *God. Hist. Nat. Léop. Fr.* i. 55, pl. 19, f. 3.

Sesia Stellatarum, *Fabr. Ent. Syst.* iii. 1, 380, 5. *Vieweg, Tab. Verz.* i. 13, 1. *Rossi, Faun. Etr.* ii. 164, 1058; *Ed. Ill.* 263, 1058.

Macroglossa Stellatarum, *Steph. Ill. Brit. Ent. Haust.* i. 133, 1; *Cat. Brit. Lep.* 29. *Boisd. Ind. Méth.* 45, 371. *Curt. Brit. Ent.* xvi. pl. 747.

Var. β. Sphinx Belis, *Linn. Syst. Nat.* ed. 10, 493, 31.

Psithyros Stellatarum, *Hübner. Verz. Schmett.* 132, 1409.

a—n. England. From Mr. Stephens' collection.

o—q. England.

r. Europe. From M. Becker's collection.

s. Europe.

t, v. Turkey. Presented by W. K. Loftus, Esq.

- u.* Tripoli.
- w.* Teneriffe.
- x.* North China. From Mr. Cuming's collection.
- y.* North China (Shanghai). From Mr. Fortune's collection.

2. MACROGLOSSA CROATICA.

Viridis, subtus alba; abdomen fascia apiceque rufescentibus, postice testaceum, fasciculis lateralibus albis; fasciculus apicalis subtus niger; alæ anticæ ferrugineo late marginatæ, posticæ rufæ.

Sphinx Croatica, *Esp. Schmett.* 33, pl. 45, f. 2. *Ochs. Schmett. von Eur.* ii. 191, 3.

Sphinx Sesia, *Hübner. Sphing.* 94, 3, pl. 18, f. 89.

Macroglossa Croatica, *Boisd. Ind. Méth.* 32; ed. 2, 45, 370; *Icon. Hist. Lépid. Sphing.* 13, pl. 48, f. 5. *Treit. Suppl.* x. 127. *Dup. Hist. Nat. Lépid. Fr.* ii. 27, pl. 3, f. 3. *Frey. Neu. Beit. Schmett.* ii. 151, 326, pl. 188.

Cephonodes Croatica, *Hübner. Verz. Schmett.* 131, 1406.

Dalmatia. Greece.

North America.

3. MACROGLOSSA FLAVOFASCIATA.

Testacea, subtus nigricans; caput nigro fasciatum; abdomen nigricans, fasciculis duobus apicalibus testaceis; alæ nigro-fuscae, fascia lata obliqua lutea, posticæ basi subtus lutescentes.

Macroglossa flavofasciata, *Barnston, MSS.*

Testaceous, blackish beneath. Head with a blackish band in front. Abdomen blackish, with a testaceous tuft on each side at the tip. Wings blackish brown, with a broad oblique luteous band. Fore wings somewhat luteous beneath towards the base. Length of the body 8 lines; of the wings 20 lines.

In structure this species resembles *Sesia*, and recedes from the type of the genus, *M. Stellatarum*, which has a longer and more depressed abdomen.

a. St. Martin's Falls, Albany River, Hudson's Bay. Presented by Dr. Barnston.

South America.

South America has two types of *Macroglossa*, the one—or *M. Tantalus* and *M. Fadus*—like the European species in structure, the other comprising *M. Ceculus* and *M. Sagra*, and distinguished by the broader wings, and by the dilated abdomen.

4. MACROGLOSSA TANTALUS.

Cinereo-fusca, subtus albida ; abdomen fascia lata maculisque lateralibus albis, postice ferruginosum ; alæ anticæ fasciis variis undulatis obscurioribus, macula discali nigra, fasciaque obliqua abbreviata plus minusve guttulari vitrea alteraque interiore posteriore albida ; posticæ nigricantes, anticæ et apud angulum interiorem albidæ.

Sphinx Tantalus, Linn. *Mus. Lud. Ulr.* 21. *Fabr. Sp. Ins.* ii. 153, 1 ; *Mant. Ins.* ii. 98, 1. *Cram. Pap. Exot.* i. 107, pl. 68, f. F. *Gmel. ed. Syst. Nat.* i. 5, 2386, 25.

Sesia Tantalus, *Fabr. Ent. Syst.* iii. 1, 379, 1.

Sphinx Ixion, Linn. *Syst. Nat.* ii. 803, 26. *Fabr. Sp. Ins.* ii. 154, 2 ; *Mant. Ins.* ii. 98, 2. *Gmel. ed. Syst. Nat.* ii. 5, 2386, 26.

Sphinx zonata, *Drury, Ins. Exot.* i. 57, pl. 26, f. 5.

Sphinx Titan, *Cram. Pap. Exot.* ii. 73, pl. 142, f. F.

Aellopus Tantalus, *Hübner. Exot. Schmett. Lep.* ii. *Sphing.* iii. *Leg.* i. *Bomb. A. Vulg.* 2.

Macroglossum annulosum, *Swains. Illustr.* iii. pl. 132, f. 1.

a. *Parà*. Presented by J. P. G. Smith, Esq.

b. *South America*. Presented by E. Doubleday, Esq.

c, d. *Brazil*.

e, f. *Venezuela*. From Mr. Dyson's collection.

g. *Mexico*. From M. Hartweg's collection.

h. *Jamaica*. From Mr. Gosse's collection.

i, j. *St. Domingo*. From Mr. Tweedie's collection.

5. MACROGLOSSA CECULUS.

Cinerea-fusca, subtus albida ; abdomen vittis duabus anticis abbreviatis lateralibus luteis, maculis lateralibus posticis et inferioribus albis ; alæ basi subtus albidæ, anticæ fasciis undatis obliquis ferrugineo-fuscis ; posticæ nigro-fuscæ fascia lutea.

Sphinx Ceculus, *Cram. Pap. Exot.* ii. 80, pl. 146, f. G.
Psithyros Ceculus, *Hübner. Verz. Schmett.* 132, 1411.
Macroglossum fasciatum, *Swains. Illustr.* iii. pl. 132, f. 2.

- a.* Parà. Presented by J. P. G. Smith, Esq.
b. Brazil. Presented by E. Doubleday, Esq.
c. Mexico. From Mr. Argent's collection.
d—g. Brazil. From Mr. Mornay's collection.
h. Brazil. Presented by E. Doubleday, Esq.

6. MACROGLOSSA SAGRA.

Cinereo-fusca, lata, subtus testacea; thorax vittis duabus lateralibus ferrugineis intus cano marginatis; abdomen ferrugineo canoque tessellatum, maculis lateralibus luteis, subtus maculis albis bivittatum; alæ latiusculæ, anticæ fasciis variis ferruginosis, linea transversa interiore albida, guttaque apud marginem anteriorem vitrea; posticæ nigro-fuscæ, fascia obliqua margineque exteriori luteis.

Macroglossa Sagra, *Boisd. MSS.*

- a, b.* Brazil. Presented by E. Doubleday, Esq.
c. Colombia. From M. Becker's collection.

7. MACROGLOSSA FADUS.

Ferrugineo-fusca; pedes antice albidii; alæ anticæ strigis duabus obliquis albidis.

Sphinx Fadius, *Cram. Pap. Exot.* i. 95, pl. 61, f. C. *Fabr. Sp. Ins.* ii. 154, 5; *Mant. Ins.* ii. 99, 5; *Gmel. ed. Syst. Nat.* i. 5, 2387, 96.

Sesia Fadius, *Fabr. Ent. Syst.* iii. 1, 378.

Surinam.

Africa.

M. Stellatarum occurs in North Africa, and is represented in South Africa by *M. Trochilus*, while the West African species agrees with the South American type of *M. Tantalus*.

8. MACROGLOSSA TROCHILUS.

Ferrugineo-fusca, cervino tincta, subtus albida; abdomen vittis duabus lateralibus anterioribus luteis, maculis lateralibus albidis, segmentorum marginibus posticis testaceis; alæ anticæ fasciis obliquis undulosis obscure fuscis; posticæ fascia lata obliqua lutea.

Psithyros Trochilus, *Hübner. Exot. Schmett. Lep. ii. Sphing. iii. Leg. i. Bomb. A. Vulg. 3.*

Ferruginous-brown, with a slight fawn-coloured tinge, whitish beneath. Abdomen with a luteous anterior stripe on each side; hind borders of the segments testaceous; whitish spots along each side. Fore wings with undulating oblique dark brown bands. Hind wings with a broad oblique luteous band.

a—c. Cape. From M. Dregé's collection.

d, e. South Africa. Presented by Dr. A. Smith.

f. Cape. From Dr. Krauss' collection.

g. Port Natal. From M. Gueinzus' collection.

9. MACROGLOSSA COMMASIÆ.

Ferrugineo-fusca, subtus alba; abdomen fascia lata postice incisa et cærulescente alba, necnon maculis lateralibus posticis albis; alæ anticæ fasciis obliquis undulatis obscurioribus, maculis duabus nigricantibus subapicalibus; posticæ obscuriores.

Macroglossa Commasiæ, *Boisd. MSS.*

Ferruginous-brown, white beneath. Abdomen with a broad white band, which is notched and bluish hindward; two white spots on each side towards the tip; under side whitish towards the base. Fore wings with darker undulating oblique bands, and with two blackish subapical spots. Hind wings darker than the fore wings. Length of the body 11—13 lines; of the wings 18—20 lines.

West and South Africa.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

Madagascar.

10. MACROGLOSSA MILVUS.

Ferrugineo-fusca, subtus ferruginea; palpi subtus cani; abdomen vittis duabus latis anterioribus luteis maculisque posterioribus albidis lateralibus; alæ anticæ cinereo subnebulosæ; posticæ ferrugineæ, basi luteæ, subtus fusco fasciatæ.

Macroglossa Milvus, *Boisd. MSS.*

Ferruginous-brown, ferruginous beneath. Palpi hoary beneath. Abdomen with two broad anterior lateral luteous stripes, and with whitish posterior spots on each side. Fore wings somewhat mottled with cinerous patches. Hind wings ferruginous, luteous at the base, with slender brown bands on the under side. Length of the body 12 lines; of the wings 22 lines.

Madagascar. In Mr. Saunders' collection.

Asia.

Group 1.

Like *M. Stellatarum* in structure.

11. MACROGLOSSA GYRANS.

Cinereo-fusca, subtus albida; abdomen vittis duabus lateralibus anterioribus luteis, maculis posterioribus nigricantibus, maculisque duabus lateralibus apicalibus albis; alæ anticæ fasciis obliquis undulosis obscure fuscis maculoque obscuriore subapicali; posticæ ferrugineæ marginibus obscurioribus.

Macroglossa gyrans, *Boisd. MSS.*

Cinereous-brown, whitish beneath. Abdomen with a luteous anterior stripe on each side, with blackish posterior spots, and with two white lateral apical spots. Fore wings with oblique undulating dark brown bands, and with a more or less darker subapical spot. Hind wings ferruginous, with darker borders. Length of the body 11—14 lines; of the wings 18—22 lines.

a. Madras. Presented by Walter Elliott, Esq.

b, c. North India. From Mr. Stevens' collection.

d—g. Hindostan.

Var. β. Abdomen with a slender abbreviated white subapical band.

h. Canara. Presented by S. N. Ward, Esq.

i. Ceylon. Presented by R. Templeton, Esq.

12. MACROGLOSSA PASSALUS.

Ferrugineo-fusca, subtus alba; abdomen maculis luteis guttisque albis lateralibus, subtus ferrugineum disco antico testaceo; alæ anticæ cinereo-ferrugineæ fasciis ferrugineis undulatis obscurioribus, posticæ fascia obliqua lutea antice dilatata.

Sphinx Passalus, *Drury, Exot. Ins.* ii. 52, pl. 29, f. 2.

Sphinx Belis, *Cram. Pap. Exot.* ii. 147, pl. 94, f. C. *Linn. Syst. Nat.* 803, 27; *Ed.* 10, 493, 31.

Macroglossa Passalus, *Westw. ed. Drury.*

Var.? Sphinx Faro, *Cram. Pap. Exot.* iii. 165, pl. 285, f. C.

a—d. Penang. Presented by Sir W. Norris.

e. Silhet. From Mr. Stainforth's collection.

f, g. North India. From Mr. Stevens' collection.

h. Java. From Mr. Argent's collection.

i. Malabar Coast. Presented by S. N. Ward, Esq.

13. MACROGLOSSA SITIENE.

Cinereo-fusca, cervino tinctoria; abdomen maculis luteis guttisque albis lateralibus; alæ anticæ fasciis variis undulosis obscure fuscis maculisque duabus subapicalibus nigricantibus; posticæ obscure fuscae fascia obliqua lutea.

Macroglossa Sitiene, *Boisd. MSS.*

Cinereous-brown, with a slight fawn-coloured tinge, paler beneath. Abdomen with luteous spots and with white dots along each side. Fore wings with various undulating more or less distinct dark brown bands, and with two blackish subapical spots. Hind wings dark brown, with an irregular oblique luteous band. Length of the body 10—14 lines; of the wings 18—22 lines.

a—c. Silhet. Presented by E. Doubleday, Esq.

d. Moulmein. From Archdeacon Clerk's collection.

e. North India. From Mr. Stevens' collection.

f. North India.

g. Port Natal. From Mr. Stevens' collection.

14. MACROGLOSSA CORYTHUS.

Ferrugineo-fusca, subcinerascens, subtus albida; abdomen maculis quatuor lateralibus basalibus luteis; alæ anticæ fasciis obliquis undulosis fuscis; posticæ obscuriores, fascia lata nonnunquam interrupta lutea.

Macroglossa Corythus, *Boisd. MSS.*

Ferruginous-brown, with a slight cinereous tinge, whitish beneath. Abdomen with two luteous spots on each side towards the base. Fore wings with oblique undulating brown bands. Hind wings darker, with a broad luteous band, which varies in breadth, and is occasionally interrupted. Length of the body 11—14 lines; of the wings 18—24 lines.

a, b. Ceylon. Presented by R. Templeton, Esq.

c, d. Canara. Presented by S. N. Ward, Esq.

e, f. Java. From the collection of the East India Company.

Var. β. Smaller. Luteous band of the hind wings narrower, more curved inward on its outer side, and more excavated on its inner side.

g—i. Silhet. Presented by E. Doubleday, Esq.

j. Silhet. From the Rev. J. Stainforth's collection.

k. North India. From Mr. James' collection.

l. Ceylon. Presented by R. Templeton, Esq.

15. MACROGLOSSA GILIA.

Cervina, subtus albida; abdomen vittis duabus luteis anterioribus lateralibus, postice nigro-fuscum, fascia gracili abbreviata nonnunquam interrupta alba; alæ anticæ cinereo-fuscae, fasciis obscurioribus undulosis; posticæ obscure fuscae, fascia ante basali lutea nonnunquam obsoleta.

Macroglossa Gilia, Boisd. Herr.-Schæff. Léop. Exot. Sp. Nov. Sér. 1.

Fawn-colour, whitish beneath. Abdomen with a luteous anterior stripe on each side; hind part blackish brown, with a slender abbreviated and occasionally interrupted white band. Fore wings cinereous-brown, with darker undulating bands. Hind wings dark brown, towards the base with a more or less complete luteous band, which is occasionally quite obsolete. Length of the body 10—12 lines; of the wings 18—20 lines.

a. Nepaul. Presented by Major-General Hardwicke.

b. North India. From Mr. Stevens' collection.

c. North India. Presented by E. Doubleday, Esq.

d. ———? From Mr. Argent's collection.

e. Java. From Mr. Argent's collection.

16. MACROGLOSSA VOLUCRIS.

Cinereo-fusca; abdomen maculis quatuor anterioribus testaceis, quatuorque posterioribus nigris lateralibus, fasciæque gracili interrupta subapicali alba; alæ anticæ fasciis latis obliquis obscure fuscis; posticæ obscure fusæ, fascia lata testacea.

Cinereous-brown. Abdomen with four lateral testaceous or pale luteous anterior spots, and with four lateral black posterior spots, behind which there is a slender interrupted white band. Fore wings with broad oblique dark brown bands. Hind wings dark brown, with a broad testaceous or pale luteous oblique band. Length of the body 9—10 lines; of the wings 16—18 lines.

Macroglossa volucris, Boisd. MSS.

a. Silhet. Presented by E. Doubleday, Esq.

b—d. North India. From Mr. Argent's collection.

e—g. North India. From Mr. Stevens' collection.

17. MACROGLOSSA DIVERGENS.

Ferruginea; caput subtus albidum; pectus cervinum; thorax vittis duabus arcuatis albis; abdomen maculis lateralibus anterioribus luteis, maculis quatuor discalibus nigris, fasciculo apicali nigro; alæ obscure fusæ, anticæ fasciis latis obliquis cinereis, posticæ fascia lutea.

Ferruginous. Head whitish beneath. Pectus fawn-colour. Thorax with two curved white stripes. Abdomen with luteous anterior spots on each side, somewhat cinereous on the disk, where there are four blackish spots; apical tuft black. Wings dark brown. Fore wings with broad oblique cinereous bands. Hind wings with a luteous band. Length of the body 12 lines; of the wings 22 lines.

a. Ceylon. Presented by R. Templeton, Esq.

Group 2.

Corpus latum, depressum; alæ anticæ longæ, maculis vitreis.

Differing from all the preceding types in structure, and distinguished by its broad depressed body, and by its long fore wings, with vitreous spots.

18. MACROGLOSSA TRIOPUS.

Ferruginosa ; caput subtus album ; thorax vittis duabus albidis ; pectus rufescens ; abdomen nigrum fascia lata interrupta coccinea, maculis posterioribus dorsalibus et lateralibus ochraceis, subtus coccineum maculis lateralibus nigris ; alæ anticæ nigro-fuscæ, fasciis cinereis, plaga discali punctoque exteriori vitreis ; posticæ nigricantes fascia guttulari cinerea, ad costam albæ, linea apud angulum interiorem coccineo-alba, subtus coccineæ nigro bifasciatæ.

Macroglossa Triopus, Westw. *Cab. Orient. Ent.* 14, pl. 6, f. 4.

a, b. Silhet. From Mr. Stainforth's collection.

Group 3.

Antennæ robustæ, fortiter serrato-setosæ. Abdomen apice latum. Alæ anticæ perangustæ, acuminatæ, margine exteriori perobliquo.

Antennæ stout, strongly serrate-setose. Abdomen broad to the tip. Fore wings very narrow, pointed ; exterior border extremely oblique.

19. MACROGLOSSA INFERNALIS.

Cinereo-nigricans ; palpi subtus albi ; thorax luteus ; abdomen fascia lata apicali aurata ; alæ anticæ subfasciatæ, basi canescentes, posticæ apud costam albæ.

Sesia infernalis, Westw. *Cab. Orient. Ent.* 61, pl. 30, f. 3.

a, b. Silhet. From Mr. Stainforth's collection.

c, d. Silhet. Presented by E. Doubleday, Esq.

e, f. Silhet. From the Rev. J. Stainforth's collection.

Australia.

Group 1.

Characters like those of the first Asiatic group.

20. MACROGLOSSA ERRANS.

Cinereo-fusca, subtus alba ; caput et thorax fusco univittata ; thorax vittis duabus lateralibus arcuatis fuscis ; abdomen canescens, e maculis ferrugineo-fuscis quadrivittatum, maculis lateralibus albis, maculisque quatuor lateralibus basalibus luteis ; alæ anticæ fasciis undulatis transversis fuscis, maculis duabus nigricantibus oblongis subapicalibus maculisque duabus trigonis marginalibus albidis.

Macroglossa errans, Boisd. MSS.

Cinereous-brown, white beneath. Head and thorax with a darker brown stripe. Thorax with two curved lateral dark brown stripes which have darker inner borders. Abdomen mostly hoary, with four ferruginous-brown spots on each segment; two luteous spots on each side near the base, and smaller lateral white spots from thence hindward. Fore wings with brown undulating transverse bands, with two blackish oblong subapical spots, and with two triangular whitish spots, one on the costa, the other on the interior border, which is brighter and much more clearly defined than that of *M. Passalus*. Length of the body 13—16 lines; of the wings 24—26 lines.

This species has the structure of *M. Passalus*, and otherwise much resembles it, but is sufficiently distinct.

a. Australia. From Mr. Strange's collection.

Var. β. Fore wings with a white band instead of the two white spots.

a. Australia. From Mr. Strange's collection.

Moreton Bay. Presented by J. Gibbon, Esq.

Australia. Presented by the Entomological Club.

Australia. Presented by Sir W. Jardine.

21. MACROGLOSSA MICACEA.

Fusca, subtus alba ; caput et alæ anticæ viridi aut cyaneo micantes ; abdomen strigis quatuor albidis transversis basalibus, maculisque lateralibus albis ; alæ anticæ fasciis nonnullis obscurioribus unaque exteriori glaucescente ; posticæ nigro-fuscæ, costa strigaeque apud marginem anteriorem maris testacea, fœm. albida.

Brown, white beneath. Head, thorax and fore wings tinged with shining green or blue. Abdomen with two whitish transverse

streaks on each side at the base, and with a row of white spots along each side. Fore wings with several slight dark brown bands, and with an indistinct exterior glaucous band. Hind wings brownish black, with the costa and a streak along the exterior border testaceous in the male, whitish in the female. Length of the body 14—16 lines; of the wings 24—28 lines.

a. Australia. From the Voyage of H.M.S. Rattlesnake.

b. Australia. From Mr. Strange's collection.

c, d. Moreton Bay. Presented by — Gibbons, Esq.

Genus 3. PROSERPINUS.

Corpus crassum. Caput obtusum. Proboscis longiuscula. Palpi breves, robusti. Antennæ subclavatæ, thorace paullo longiores. Abdomen thorace longius, apice subfasciculatum. Pedes graciles; femora et tibiæ pilosissima; tibiæ posticæ calcaribus quatuor longis. Alæ mediocriter latæ, apud marginem exteriorem excavatæ; anticæ apice subhamatæ. *Mas.* — Antennæ subserrato setosæ. *Fœm.* — Antennæ simplices.

Sphinx, p., *Fabr.*; *Schr.*; *Esp.*; *Illig.*; *Hübner.*; *Panz.*

Proserpinus, *Hübner.* *Verz. Schmett.* 132.

Macroglossa, p., *Ochs.*

Pterogon, *Boisd. Ind. Méth.* 32; ed. 2, 46. *Icon. Hist. Lép. Sphing.* 64. *Duponch.*

Body thick. Head obtuse. Proboscis rather long. Palpi short and thick. Antennæ subclavate, a little longer than the thorax. Abdomen rather longer than the thorax, very slightly tufted at the tip. Legs slender; femora and tibiæ very pilose; hind tibiæ with four long spurs. Wings moderately broad, excavated along the exterior border. Fore wings slightly hooked at the tips; second inferior vein much further from the third than from the first; third much further from the fourth than from the second. *Male.* — Antennæ minutely serrate-setose. *Female.* — Antennæ simple, a little more clavate than those of the male.

1. PROSERPINUS CENOTHERÆ.

Cano-viridescens; antennæ apice albæ; thorax plagis duabus trigonis lateralibus viridibus; alæ anticæ fascia obliqua saturate viridi, gutta discali nigricante, margine exteriori viridescente; posticæ luteæ, fusco late marginatæ, ciliis albidis.

K

- , *Engr. Pap. d'Eur.* iii. 119, pl. 121, f. 166.
- Sphinx CEnotheræ, *Fabr. Sp. Ins.* ii. 141, 10; *Mant. Ins.* ii. 93, 11; *Ent. Syst.* iii. 1, 359, 12. *Wien. Verz. Schmett.* 43, 1, pl. tit. *Fuessl. Ent. Mag.* ii. pl. 1, f. 9, 10. *Esp. Schmett.* ii. 167, pl. 26; 198, pl. 26, f. 2, 3. *Gmel. ed. Syst. Nat.* i. 5, 2374, 54. *Hübner. Sphing.* 94, 5, pl. 9, f. 58; *Larv. Lep.* ii. *Sphing.* iii. *Leg.* A, b, c, f. 2, a, b. *Illig. N. Ausg. dess.* i. 19, 1; *Mag.* ii. 37, 1. *Panz. Faun. Germ.* 21, 23. *Fuessl. A. Mag.* ii. 1, 65, pl. 1, f. 9, 10; *N. Mag.* ii. 2, 210; iii. 2, 146. *Schrank, Faun. Boic.* ii. 1, 229, 1393. *Bork. Eur. Schmett.* ii. 59, 135, 177. 4. *Rossi, Faun. Etr. Mant.* ii. 15, 362. *Lang. Verz.* ii. 71, 572, 573. *Brahm, Ins. Kal.* 422, 297. *Schwarz, Raup.* 364. *Ochs. Schmett. von Eur.* ii. 196, 5. *God. Lép. Fr.* iii. 52, pl. 19, f. 2.
- Sphinx Proserpina, *Pall. Spic. Zool.* 9, 26, pl. 2, f. 7.
- Pterogon CEnotheræ, *Boisd. Ind. Méth.* 46, 372.
- Proserpinus CEnotheræ, *Hübner. Verz. Schmett.* 132, 1413.
- a—c. South France.
- d, e. Europe. From M. Becker's collection.

2. PROSERPINUS GORGONIADES.

Pallide cinereus; abdomen maculis lateralibus albidis; alæ flexuoso angulatæ, nigrescente fasciatæ, strigis arcuatis rectisque albidis.

- Sphinx Gorgon, *Esp. Schmett.* ii. *Cont.* 22, pl. 47, f. 5. *Hübner. Sphing.* pl. 21, f. 102; pl. 27, f. 124.
- Macroglossa Gorgon, *Ochs. Schmett.* ii. 199; iv. 42; v. 175, 6.
- Pterogon Gorgoniades, *Boisd. Ind. Méth.* 32; ed. 2, 46, 373.
- Pterogon Gorgon, *Duponch. Hist. Nat. Lép. Fr. Suppl.* ii. 23, pl. 3, f. 2.
- South Russia.

Genus 4. THYREUS.

Corpus latissimum. Caput antice obtusum. Proboscis longa. Palpi breves, crassi. Antennæ setacæ, thorace multo longiores. Abdomen thorace duplo longius. Pedes sat graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ angustæ; anticæ apud costam rectæ, apice truncatæ, apud marginem exteriorum per-

obliquæ, incisuris duabus bene determinatis, margine interiore undulato; posticæ margine exteriori denticulato.

Thyreus, Swainson, Zool. Illustr. Harris, Amer. Journ. Sci. xxxvi.

Sphinx, p., Fabr.; Gmel.

Amphion, Hübn. Verz. Schmett. 134.

Body very broad. Head obtuse in front. Proboscis long. Palpi short and thick. Antennæ setaceous, much longer than the thorax. Abdomen about twice the length of the thorax. Legs rather slender; hind tibiæ with four moderately long spurs. Wings narrow. Fore wings straight in front, truncate at the tips, very oblique, and with two deep notches along the exterior border; interior border undulating; fourth inferior vein very remote from the third. Hind wings denticulate along the exterior border.

1. THYREUS ABBOTII.

Ferrugineo-fuscus; corpus subcinerascens, subfasciatum; antennæ testaceæ; alæ strigis obliquis nigricantibus, posticæ dimidio antico flavo.

Thyreus Abbotii, Swainson, Zool. Illustr. i. pl. 60. Harris, Amer. Journ. Sci. xxxvi.

a, b. New York. Presented by E. Doubleday, Esq.

c. Georgia. From Mr. Abbot's collection.

2. THYREUS NESSUS.

Ferrugineo-fuscus, subtus rufo-lutescens; thorax vittis duabus lateralibus anticis pallidis; abdomen fasciis duabus angustis pallide flavis; alæ ciliis ex parte pallide flavis, anticæ subcinereæ, fasciis variis obliquis nigricantibus, macula costali subapicali rufa; posticæ obscuriores, vitta obliqua rufa.

Sphinx Nessus, Cram. Pap. Exot. ii. 9, pl. 107, f. D. Fabr. Sp. Ins. ii. 140, 2; Mant. Ins. ii. 92, 2; Ent. Syst. iii. 1, 355, 2. Gmel. ed. Syst. Nat. i. 5, 2372, 91.

Amphion Nessus, Hübn. Verz. Schmett. 135, 1444.

Thyreus? Nessus, Harris, Amer. Journ. Sci. xxxvi.

a. Trenton Falls, New York. Presented by E. Doubleday, Esq.

b. Orilla, West Canada. From Mr. Bush's collection.

3. THYREUS GAURÆ.

Testaceo-olivaceus; alæ anticæ olivaceæ, strigis duabus albidis puncto disci deltoideo; posticæ rufæ striga pallida, exterius nigræ margine albo.

Sphinx Gauræ, *Abbot & Smith, Nat. Hist. Lep. Ins. Georg. i. 61, pl. 31.*

Proserpinus Gauræ, *Hübner. Verz. Schmett. 132, 1414.*

4. THYREUS? INSCRIPTUS.

Cinereus; prothorax fusco marginatus; abdomen e guttis nigris bivittatum; alæ anticæ fasciis duabus obscuris linea nigricante connexis, lineis nonnullis exterioribus transversis undulatis aut angulosis, margine exteriori obscuro, macula fusca apicali semiovata, plagaque parva nigro-fusca subapicali albo signata; posticæ rufo-cinereæ, margine postico obscuro.

Pterogon? inscriptum, *Harris, Amer. Journ. Sci. xxxvi. 306.*

Ash-gray. Prothorax edged with brown. Abdomen with two dorsal series of black dots. Wings angularly indented. Fore wings with two dusky bands near the base, connected on the inner margin by a blackish line, a few undulated and zigzag transverse lines beyond the middle, a dusky outer margin, a half oval brown spot at the tip, and a small deep brown patch, including a white one near the tip. Hind wings reddish gray, with a dusky hind margin.

Indiana.

Genus 5. PERIGONIA.

Corpus latum, subfusiforme. Caput obtusum. Proboscis breviuscula. Palpi brevissimi, validissimi. Antennæ setaceæ, graciles, thorace paullo longiores. Abdomen thorace multo longius. Pedes sat graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ mediocriter latæ; anticæ subacuminatæ, margine exteriori biangulato sat obliquo; posticæ apud marginem exteriori subdenticulatæ. *Mas.*—Antennæ subserrato-setosæ. *Fæm.*—Antennæ simplices.

Sphinx, *Fabr.; Gmel.*

Perigonia, *Boisd.*

Body broad, slightly fusiform. Head obtuse. Proboscis rather short. Palpi very short and stout. Antennæ setaceous, slender, a little longer than the thorax. Abdomen much longer than the thorax. Legs rather slender; hind tibiæ with four moderately long spurs. Wings opaque, moderately broad. Fore wings hardly convex towards the tip of the costa, rather oblique along the exterior border, which is slightly angular in the middle and behind the tip; fourth inferior vein remote from the others. Hind wings very slightly denticulated along the exterior border. *Male*.—Antennæ minutely serrate-setose. *Female*.—Antennæ simple.

1. PERIGONIA LUSCA.

Ferrugineo-fusca, subcinerascens, subtus testacea; alæ anticæ fasciis tribus diffusis cinerascens lineisque transversis nigricantibus; posticæ fascia variabili strigae apud angulum interiorem luteis.

Sphinx Lusca, *Fabr. Sp. Ins.* ii. 140, 5; *Mant. Ins.* ii. 92, 5; *Ent. Syst.* iii. 1, 356, 6. *Gmel. ed. Syst. Nat.* i. 5, 2372, 51.

Perigonia stulta, *Boisd. Herr.-Schæff. Lep. Exot. Sp. Nov. Ser.* 1.

a, b. Mexico. From Mr. Hartweg's collection.

c. Mexico. From Mr. Argent's collection.

d. Guatemala. From M. Sallé's collection.

e. Parà. Presented by J. P. G. Smith, Esq.

f. ———? From Mr. Children's collection.

g. Venezuela. From Mr. Dyson's collection.

h. St. Domingo. From Mr. Tweedie's collection.

2. PERIGONIA COFFÆÆ.

Cinereo-fusca, subtus lutea rufo varia; alæ anticæ olivaceo-viridi subinctæ, cano fasciatæ; posticæ cano variæ, apud discum luteæ fuscoque fasciatæ.

Perigonia Coffææ, *Boisd. MSS.*

Cinereous-brown, luteous and varied with red beneath. Fore wings slightly tinged with olive-green, adorned with various irregular hoary bands. Hind wings varied with hoary, mostly luteous in the disk, which is traversed by a brown band. Length of the body 13—14 lines; of the wings 28—30 lines.

a, b. Brazil. From Mr. Stevens' collection.

3. PERIGONIA TESTACEA.

Cervina; *alæ anticæ apud marginem anteriorem ferruginæ, fascia obliqua media diffusa testacea, apice rotundatæ, margine exteriori subundulato*; *posticæ ferruginæ, fascia indistincta testacea, margine exteriori subexcavato*.

Fawn-colour. Fore wings ferruginous along the exterior border, and with a testaceous oblique diffuse middle band; tips rounded; exterior border very slightly undulating; interior angle slightly hooked. Hind wings ferruginous, with an indistinct testaceous band; exterior border slightly excavated. Length of the body 13 lines; of the wings 24 lines.

a. ———? Presented by E. Doubleday, Esq.

Group 2.

Alæ latiores; *anticæ apud marginis exterioris medium non angulatæ, prope angulum subapicalem excavatæ*; *posticæ margine exteriori convexiore non denticulato*.

This group differs slightly from the typical one, which comprises *P. Lusca* and *P. Coffææ*. The wings are broader, and the fore wings are not angular in the middle of the exterior border, and are excavated behind the subapical angle. The exterior border of the hind wings is more convex, and not denticulated.

4. PERIGONIA SUBHAMATA.

Fusca (mas) aut *ferruginea* (fœm.), *subtus pallidior*; *alæ fasciis obliquis undulosis pallide ferrugineis, anticæ gutta discali ferruginea maculaque subapicali cinerea*.

Brown (*male*) or ferruginous (*female*), paler beneath. Wings with oblique undulating pale ferruginous bands, which are most numerous on the fore wings, and the latter have a discal dot of the same hue, and a cinereous subapical spot. Length of the body 13—15 lines; of the wings 28—32 lines.

a. Mexico. From Mr. Argent's collection.

b. Parà. From Mr. Bates' collection.

c. Venezuela. From Mr. Dyson's collection.

Group 3.

Caput antice rotundatum, non conicum. Alæ anticæ apice rotundatæ, margine exteriori perobliquo subconvexo non excavato.

Head rounded in front, not conical, as in *P. subhamata*. Fore wings somewhat rounded at the tips, slightly convex and not excavated along the exterior border, which is very oblique.

5. PERIGONIA GLAUDESCENS.

Fusca, subtus testacea; caput albo bistrigatum; thorax subviridescens; abdomen ferrugineum, subglaucescens, segmento 5o albido, 6i et 7i lateribus albido fasciculatis, fasciculo apicali nigricante; alæ subtus rufescentes, anticæ glaucescentes bifasciatæ, fascia una fusca, altera ferruginea fusco extus marginata; posticæ fuscae, macula apud angulum interiorem lutea.

Brown, testaceous beneath. Head with a white streak on each side behind the eye. Antennæ tawny, very slender, not longer than the thorax. Thorax slightly tinged with green. Abdomen ferruginous, slightly glaucous: fifth segment whitish; sixth and seventh segments with a whitish tuft on each side; apical tuft blackish. Wings reddish beneath. Fore wings with a glaucous tinge, and with two oblique bands, the one dark brown and interior, the other ferruginous and exterior, and bordered with dark brown on its outer side. Hind wings dark brown, with a luteous spot by the interior angle, and a white speck near the base of the interior border. Length of the body 12 lines; of the wings 28 lines.

a. St. Domingo. From Mr. Tweedie's collection.

6. PERIGONIA UNDATA.

Fusca; caput subtus et pectus canescentia; thorax vittis duabus latis abbreviatis posterioribus obscure fuscis; alæ anticæ cinereæ, nitentes, gutta alba strigaeque nigra basalibus, striga alba maculaque nigra discalibus, fasciisque duabus latis ferrugineis nigro marginatis.

Macroglossa undata, MSS.

Brown. Head beneath and pectus somewhat hoary. Thorax with a short broad posterior dark brown stripe on each side. Abdomen and hind wings wanting. Fore wings cinereous, shining, with a white dot and a black streak at the base, with a white streak



traversing the black discal spot, and with two broad irregular ferruginous bands, which are bordered, and the exterior one interlined with black. Length of the body 9 (?) lines; of the wings 18 lines.

a. Jamaica.

Genus 6. TEMNORA.

Caput subconicum. Caput et thorax vix carinata. Proboscis mediocriter longa. Palpi breves, validi. Antennæ subfiliformes, apice attenuatæ. Abdomen oblanceolatum, thorace non duplo longius. Pedes sat graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ angustæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriori valde obliquo, subdenticulato, apicem versus excavato; posticæ subdenticulatæ.

Temnora, Boisd. MSS.

Head slightly conical. Head and thorax hardly keeled. Proboscis moderately long. Palpi short and stout. Antennæ nearly filiform, attenuated at the tips. Abdomen oblanceolate, somewhat less than twice the length of the thorax. Legs rather slender; hind tibiæ with four moderately long spurs. Wings narrow. Fore wings straight along the costa, rounded at the tips, excavated behind the tips, slightly denticulated from thence hindward along the exterior border, which is extremely oblique; second inferior vein much nearer to the first than to the third; third much nearer to the second than to the fourth. Hind wings slightly denticulated.

1. TEMNORA NATALIS.

Cinerea; caput et thorax vitta obscure fusca; abdomen apicem versus fuscens alboque unifasciatum; alæ anticæ striga ferruginea antica lineaque obliqua nigra basalibus, plaga discali albida, plagaque costali necnon strigis cuneatis nigricantibus; posticæ ferrugineo-fuscæ, apud angulum interiorem cinereæ.

Temnora Natalis, Boisd. MSS.

Cinereous. Head and thorax with a dark brown stripe. Abdomen somewhat brownish towards the tip, which has a white band. Fore wings with a ferruginous streak in front at the base, near which there is an oblique black line; a whitish patch in the disk, and a blackish costal patch towards the tip, near which there are several cuneiform blackish streaks. Hind wings ferruginous-

brown, cinereous towards the interior angle. Length of the body 13 lines; of the wings 24 lines.

a, b. Port Natal. From M. Gueinzus' collection.

2. TEMNORA PLAGIATA.

Ferrugineo-fusca; caput et thorax vitta fuscescente; abdomen e maculis obscure fuscis bivittatum, apice ferrugineum; alæ anticæ cinereæ, subferrugineæ, lineis variis transversis undulosis ferrugineis aut fuscis, gutta duplicata discali plagaque costali trigona exteriori obscure fuscis, apicibus pallide cinereis, gutta apud angulum interiorem nigra maculaque costali ferruginea; posticæ ferrugineæ.

Ferruginous-brown, paler beneath. Head and thorax with a brownish stripe. Abdomen with two dorsal stripes of dark brown spots; tip ferruginous. Fore wings cinereous, slightly ferruginous, with various ferruginous or brown transverse undulating lines, with a divided dark brown discal dot, with an exterior dark brown triangular costal patch; tips pale cinereous, with a black dot by the interior angle, and with a ferruginous costal spot. Hind wings ferruginous; ciliæ of the four wings testaceous-black at the tips of the veins. Length of the body 12 lines; of the wings 24 lines.

The wings of this species are rather broader than those of *T. Natalis*, and more slightly excavated behind the tips.

a, b. Port Natal. From M. Gueinzus' collection.

3. TEMNORA? CAUDATA.

Cinerea aut cinereo-fusca, nigro cingulata; alæ anticæ fusco nebulosæ, nigro fasciatæ, subtus flavo-fulvæ; posticæ flavæ, nigro marginatæ.

Thyreus caudatus, Bremer & Grey, *Beitr. zur Schmett. Faun. Noerd. China*, 56.

North China.

Genus 7. LOPHURA.

Corpus sat robustum. Caput conicum, subcristatum. Proboscis longiuscula. Palpi breves, validi. Antennæ subfiliformes, thorace vix longiores. Abdomen oblanceolatum, vix fasciculatum, thorace multo longius. Pedes graciles, vix pilosi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ angustæ, margine

exteriore excavato; anticæ apud costam rectæ, apice acuminatæ, margine exteriore perobliquo, interiore plus minusve unduloso. *Mas.*—Antennæ serrato-setosæ. *Fæm.*—Antennæ vix serrato-setosæ.

Lophura, *Boisd. MSS.*

Enyo, p., *Hübner. Verz. Schmett.* 132.

Body moderately stout. Head conical, slightly crested. Proboscis rather long. Palpi short, thick. Antennæ nearly filiform, hardly longer than the thorax. Abdomen oblanceolate, hardly tufted, much longer than the thorax. Legs slender, hardly pilose; hind tibiæ with four moderately long spurs. Wings narrow, excavated along the exterior border. Fore wings straight in front, acuminate at the tips, very oblique along the exterior border; interior border more or less deeply undulating; second inferior vein not more remote from the third than from the first; fourth very remote from the third. *Male.*—Antennæ distinctly serrate-setose. *Female.*—Antennæ very minutely serrate-setose.

1. *LOPHURA PYLAS.*

Cervina; alæ anticæ nigro-cyanæ, lineis transversis duplicatis nigris, vitta purpurascens, plaga exteriore fusca intus flavo extus rufo marginata, margine exteriore nigro; posticæ rufæ, basi flavæ, striga apud angulum interiorem margineque nigris.

Sphinx Pylas, *Cram. Pap. Exot.* iii. 23, pl. 206, f. A. *Fabr. Sp. Ins.* ii. 142, 13; *Mant. Ins.* ii. 94, 15; *Ent. Syst.* iii. 1, 361, 16. *Gmel. ed. Syst. Nat.* i. 5, 2375, 57.

Enyo Pylas, *Hübner. Verz. Schmett.* 132, 1417.

Surinam.

2. *LOPHURA BRISÆUS.*

Ferruginea, subtus rufescens; abdominis latera basi fulvescentia; alæ anticæ subcinereæ, lineis obliquis undulatis fasciaque contraria exteriore ferrugineis; posticæ luteæ, fusco marginatæ.

Lophura Brisæus, *Boisd. MSS.*

Ferruginous, reddish beneath. Abdomen somewhat tawny on each side towards the base. Fore wings with a cinereous tinge, with oblique undulating ferruginous lines, and with an exterior ferruginous band, which is oblique, with its hind end outward. Hind

wings luteous, with brown borders. Length of the body 9—11 lines; of the wings 18—20 lines.

a, b. Caffraria. From M. Becker's collection.

c—e. Cape. From M. Dregé's collection.

f, g. South Africa. Presented by Dr. A. Smith.

h. Port Natal. From M. Gueinzius' collection.

i. Port Natal. From Mr. Plant's collection.

3. LOPHURA HYAS.

Ferrugineo-fusca, subtus rufescens; thorax plagis duabus lateralibus obscurioribus; alæ anticæ subcinerascentes lineis fasciisque variis fuscis guttisque basalibus et discalibus nigris, margine interiore valde undulato; posticæ luteæ, marginibus latis obscure fuscis.

Lophura Hyas, Boisd. MSS.

Ferruginous-brown, reddish beneath. Thorax with a darker brown patch on each side by the fore wing. Fore wings with a cinereous tinge, varied with several irregular brown lines and bands, and with blackish basal and discal dots; interior border much more deeply undulating than that of *L. Brisæus*. Hind wings luteous, with broad dark brown borders. Length of the body 8—9 lines; of the wings 16—18 lines.

a, b. Silhet. Presented by E. Doubleday, Esq.

c. Hong Kong. Presented by Colonel Champion.

d. Java. From the East India Company's collection.

e. North India. From Mr. Stevens' collection.

f. Silhet. From Mr. Stainforth's collection.

4. LOPHURA NANA.

Fusca; abdomen rufescens; alæ ferrugineo-fusco; anticæ fusco maculatæ, apice vix acutæ, margine exteriori subobliquo vix angulato; posticæ vix excavatæ, ciliis ex parte albidis.

Lophura nana, Boisd. MSS.

Brown, paler beneath. Legs whitish. Abdomen somewhat reddish. Wings ferruginous-brown. Fore wings with some dark brown spots of various size and shape, hardly acute at the tips; exterior border slightly oblique, hardly angular. Hind wings hardly

excavated along the exterior border ; ciliæ partly whitish. Length of the body 8 lines ; of the wings 13 lines.

a, b. Port Natal. From M. Gueinzus' collection.

5. LOPHURA CONTINUA.

Ferruginea, subtus rufescens ; thorax vittis duabus obscure fuscis intus albido marginatis ; alæ anticæ strigis obscurioribus transversis, guttis duabus discalibus nigris, fascia lata interrupta nigra apud marginem exteriorem, plagaque trigona nigricante apud marginem interiorem ; posticæ luteæ, margine lata nigricante strigaeque apud angulum interiorem ferruginea.

Ferruginous, reddish beneath. Thorax with two dark brown stripes, which have whitish inner borders. Fore wings with darker transverse streaks, and with two black discal dots, with a broad interrupted irregular blackish band along the exterior border, and with a large triangular blackish patch on the interior border. Hind wings luteous, with a broad blackish exterior border, which contains a broad pale ferruginous streak by the interior angle, and is somewhat ferruginous at the tip. Length of the body 13 lines ; of the wings 24 lines.

a. Spirito Sancto, Brazil. From Mr. Stevens' collection.

b. Brazil. From M. Becker's collection.

Genus 8. CALLIOMMA.

Corpus robustum. Caput productum, conicum. Antennæ setacæ, subserrato-setosæ, thorace paullo longiores. Abdomen ob lanceolatum. Pedes sat validi ; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ mediocriter latæ ; anticæ margine exteriori undulato aut excavato aut denticulato ; posticæ margine exteriori subexcavato.

Sphinx, p., *Linn.* ; *Fabr.*

Oreus, p., et Hemeroplanes, p., et Amblypterus, p., *Hübner. Verz.*
Schmett. 133, 136.

Calliomma, *Boisd. MSS.*

Body stout. Head prominent, conical. Antennæ setaceous, minutely serrate-setose, a little longer than the thorax. Abdomen oblanceolate. Legs rather stout ; hind tibiæ with four moderately long spurs. Wings moderately broad. Fore wings undulating, or

excavated, or denticulated, along the exterior border; second inferior vein not more remote from the third than from the first; fourth very remote from the third. Hind wings with the exterior border slightly excavated.

America.

Group 1.

Caput longi-conicum, acuminatum. Alæ anticæ apice subhamatæ, margine exteriori undulato, perobliquo; posticæ acuminatæ, margine exteriori subexcavato et undulato non denticulato.

Head elongate-conical, acuminate. Fore wings slightly hooked at the tips, undulating, and very oblique along the exterior border. Hind wings acuminate, slightly excavated, and undulating, but not denticulated along the exterior border.

1. CALLIOMMA NOMIUS.

Cervina; thorax plagis duabus maximis lateralibus trigonis obscure ferrugineis; abdomen fasciculo apicali longo nigricante; alæ anticæ obscure ferrugineæ, lineis variis cinereis guttisque exterioribus nigris, striga costali elongata trigona cervina, gutta discali argentea, gutta majore posteriore testacea maculaque cinerea; posticæ ferrugineæ, apud costam testaceæ.

Calliomma Nomius, Boisd. MSS.

Fawn-colour. Thorax with a very large triangular dark ferruginous patch on each side. Abdomen with a long apical blackish tuft. Fore wings dark ferruginous, with various cinereous lines, and some exterior black dots; an elongated triangular fawn-coloured streak along the costa, a silvery discal dot, and a larger posterior testaceous dot, between which and the interior border there is a cinereous spot. Hind wings dark ferruginous, testaceous along the costa, and with testaceous ciliæ. Length of the body 16 lines; of the wings 32 lines.

a. Brazil. From M. Becker's collection.

Group 2.

Caput conicum, obtusum. Alæ anticæ hamatæ, acutæ, margine exteriori convexo, vix emarginato, apicem versus concavo;

posticæ acutæ, margine subrecto, apud angulum interiorem subexcavato.

Head conical, obtuse. Fore wings concave behind the tips, which are hooked and acute, convex, and hardly emarginate from thence to the interior angle. Hind wings slightly excavated near the interior angle, almost straight from thence to the tips, which are acute.

2. CALLIOMMA LYCASTUS.

Cervina ; palpi thoracisque plagæ duæ maximæ trigonæ laterales ferrugineæ ; abdomen maculis dorsalibus fuscis nonnunquam obsoletis ; alæ anticæ luteo-cervinæ aut cinerascens, glauco, testaceo aut albido, et nonnunquam fusco variæ, gutta basali alba lituraque discali argentea ; posticæ rufo-ferrugineæ, plaga apud angulum interiorem fusca lineis pallide purpureis.

Sphinx Licastus, *Cram. Pap. Exot.* iv. 180, pl. 381, f. A.

Oreus Licastus, *Hübner. Verz. Schmett.* 136, 1465.

Sphinx Parce, *Fabr. Sp. Ins.* ii. 148, 42 ; *Mant. Ins.* ii. 96, 46 ; *Ent. Syst.* iii. 1, 372, 50. *Gmel. ed. Syst. Nat.* i. 5, 2382, 80.

Surinam.

- a. West Coast of South America. Presented by Capt. Kellett and Lieut. Wood.
- b. Rio Janeiro. From Mr. Stevens' collection.
- c. West Indies. Presented by M. Sommer.
- d. Isle St. Vincent. Presented by E. Doubleday, Esq.
- e. St. Domingo. From Mr. Tweedie's collection.
- f. ——— ?

Group 3.

Caput longi-conicum, obtusum. Alæ anticæ subhamatæ, subacuminatæ, margine exteriori subrecto, ante medium subangulato ; posticæ sat denticulatæ, angulo interiori subproducto.

Head elongate-conical, obtuse. Fore wings slightly hooked and slightly acuminate ; exterior border almost straight along each side of an extremely obtuse angle, which is rather in front of the middle. Hind wings rather deeply denticulated, especially towards the interior angle, which is prominent.

3. CALLIOMMA PLUTO.

Cinerea ; caput et thorax vitta media fusca ; thorax vittis duabus obliquis fuscis ; abdomen basi plagisque duabus lateralibus subapicalibus ferrugineis ; alæ anticæ plaga basali, vitta obliqua discali strigaeque exteriori costali guttisque submarginibus nigro-fuscis, macula trigona punctoque anteriore discalibus argenteis ; posticæ basi et apud marginem exteriori nigro-fuscæ.

Sphinx Pluto, Linn. Mus. Lesk. 95, 184. Cram. Pap. Exot. iii. 40, pl. 216, f. E. Gmel. ed. Syst. Nat. i. 5, 2386, 161.

Hemeroplanes Plutonium, Hübn. Verz. Schmett. 133, 1427.

Surinam.

a. Brazil. From Mr. Stevens' collection.

Group 4.

Caput conicum, obtusum. Alæ latiores ; anticæ subacuminatæ, non hamatæ, margine exteriori denticulato, mediocriter obliquo, apud medium angulato ; posticæ margine exteriori denticulato, apud angulum interiorem subexcavato.

Head conical, obtuse. Wings rather broader than in the preceding groups. Fore wings slightly acuminate, but not hooked at the tips, moderately oblique, and distinctly denticulated along the exterior border, which forms a well-defined angle in the middle. Hind wings somewhat denticulated along the exterior border, which is slightly excavated towards the interior angle.

4. CALLIOMMA TRIPTOLEMUS.

Cinerea ; caput et thorax vitta media fusca ; thorax vittis duabus antice attenuatis lateralibus fuscis ; abdomen vittis duabus latis (in fœm. interruptis) fuscis, segmentorum marginibus posticis (in mare præsertim) flavis ; alæ anticæ plaga basali, fascia obliqua diffusa antice furcata media strigaeque costali exteriori fuscis, litura basali, gutta antica discali maculaque apud angulum interiorem nigro-fuscis, linea apud marginem interiorem alba, litura γ . discali argentea ; posticæ fuscae, basi et apud marginem exteriori cinereis, ciliis albidis.

Sphinx Triptolemus, Cram. Pap. Exot. iii. 40, pl. 216, f. F.

Hemeroplanes Triptolemus, *Hübner. Verz. Schmett.* 133, 1426, 43, 59.

Surinam.

a. Brazil. From Mr. Stevens' collection.

b. Ega. From Mr. Bates' collection.

c. Parà. From Mr. Bates' collection.

Asia.

5. CALLIOMMA OCHRACEA.

Ferruginea, subtus aurato-flava; caput et thoracis latera cana; abdomen cinereo fasciatum, lateribus auratis; alæ anticæ rufo-ferrugineæ, fasciis nonnullis obliquis canis lineisque quinque obliquis (duabus rectis, tribus undulatis) obscurioribus; posticæ luteæ, basi nigræ, apud marginem exteriorem fuscæ.

Allied to *C. Nomius*. Ferruginous, bright pale gilded yellow beneath. Head and sides of the thorax hoary. Abdomen gilded along each side, and with a gray band on the hind border of each segment. Fore wings reddish ferruginous, with some hoary oblique bands, paler exteriorly, and with five darker oblique lines, of which the inner two are straight and the outer three undulating. Hind wings luteous, black at the base, brown along the exterior border. Length of the body 16 lines; of the wings 30 lines.

Sumatra. In Mr. Saunders' collection.

6. CALLIOMMA BUBASTUS.

Olivaceo-viridis; antennæ testaceæ; thorax nigro bimaculatus; abdomen apicem versus nigro quadrimaculatum; alæ anticæ fuscæ, basi testaceo guttatæ, costa ex parte fasciisque duabus obliquis duplicatis olivaceo-viridibus, guttis duabus discalibus albis; posticæ olivaceo-virides, fasciis duabus abbreviatis obliquis margineque fuscis.

Sphinx Bubastus, *Cram. Pap. Exot.* ii. 84, pl. 149, f. E.

Amblypterus Bubastus, *Hübner. Verz. Schmett.* 133, 1431.

Coromandel.

Genus 9. ENYO.

Corpus robustum, longi-fusiforme. Caput obtusum. Proboscis mediocriter longa. Palpi breves, validi. Antennæ sat graciles,

subserrato setosæ, fere filiformes, thorace non longiores. Thorax cristatus. Abdomen oblanceolatum, apice vix fasciculatum, thorace valde longius. Pedes graciles, vix pilosi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ angustæ, apud marginem anteriorem excavatæ; anticæ apice truncatæ, margine exteriori perobliquo.

Sphinx, p., *Fabr.*

Enyo, p., et Hemeroplanes, p., *Hübner. Verz. Schmett.* 132, 133.

Thyreus, p., *Harris.*

Body stout, elongate-fusiform. Head obtuse. Proboscis moderately long. Palpi short and stout. Antennæ rather slender, nearly filiform, very minutely serrate-setose, not longer than the thorax. Thorax crested. Abdomen oblanceolate, hardly tufted at the tip, very much longer than the thorax. Legs slender, hardly pilose; hind tibiæ with four moderately long spurs. Wings narrow, excavated along the exterior border. Fore wings hardly convex in front, truncate at the tips, very oblique along the exterior border; interior angle somewhat hooked; second inferior vein not further from the third than from the first; third more than thrice further from the fourth than from the second.

South America.

1. ENYO LUGUBRIS.

Cinereo-fusca; abdomen e maculis testaceis trivittatum; alæ anticæ fusco subnebulosæ, venis ex parte testaceis, fasciis duabus (una recta, altera undulata submarginali) testaceis fusco marginatis, gutta discali nigra testaceo marginata; posticæ apud costam pallidiores, guttis marginalibus nigricantibus.

Var. β . *Ferruginea, subtus rufescens; alæ cinereo-fusco subnebulosæ.*

Var. γ . *Nigro-fusca; alæ posticæ striga apud marginem anteriorem albido-flava.*

Sphinx lugubris, *Drury, Ins.* i. 61, pl. 28, f. 2. *Fabr. Sp. Ins.* ii. 140, 4; *Mant. Ins.* ii. 92, 4; *Ent. Syst.* iii. 1, 356, 5. *Gmel. ed. Syst. Nat.* i. 5, 2372, 50. *Abbot & Smith, Nat. Hist. Lep. Ins. Georg.* i. pl. 59.

Thyreus lugubris, *Harris, Amer. Journ. Sci.* xxxvi.

Sphinx Fegens, *Cram. Pap. Exot.* iii. 56, pl. 225, f. 3.

Surinam.

- a, b.* Mexico. From M. Hartweg's collection.
c—f. St. Domingo. From Mr. Tweedie's collection.
g. Santarem. From Mr. Bates' collection.
h. Venezuela. From Mr. Dyson's collection.
i. Honduras. From Mr. Dyson's collection.
j. Rio Janeiro. From Mr. Stevens' collection.
k. Brazil. From Mr. Argent's collection.
l. Brazil. Presented by E. Doubleday, Esq.

2. ENYO CAMERTUS.

Murina; *thorax valde cristatus*; *abdomen e maculis nigro-fuscis bivittatum*; *alæ anticæ macula discali testacea, linea interiore obliqua cano marginata plagaque maxima diffusa exterior nigricantibus, macula subapicali ferruginea lineaque submarginali nigricante cano marginata*; *posticæ lineis obliquis undulatis obscurioribus guttisque marginalibus nigricantibus.*

Sphinx Camertus, *Cram. Pap. Exot.* iii. 53, pl. 225, f. A.

Enyo Camertus, *Hübner. Verz. Schmett.* 132, 1420.

Surinam.

This species is closely allied to *E. lugubris*, but may be distinguished by the markings on the fore wings, which are rather more excavated along the exterior border.

- a.* Brazil. From Mr. Stevens' collection.
b. Mexico. From Mr. Hartweg's collection.
c. Pará. From Mr. Bates' collection.
d. St. Domingo. From M. Becker's collection.

3. ENYO GORGON.

Cervino-ferruginea; *thorax valde cristatus*; *alæ anticæ subglaucescentes macula discali albida, linea obliqua interiore testacea fusco marginata, plaga maxima exterior nigricante apicem versus cinerascens*; *posticæ fusco nebulosæ et bilineatæ.*

Sphinx Gorgon, *Cram. Pap. Exot.* ii. 73, pl. 142, f. E.

Enyo Gorgon, *Hübner. Zeit. Samml. Exot. Schmett.* f. 595, 596; *Verz. Schmett.* 132, 1418.

Surinam.

This species is closely allied to *E. Camertus*, but differs in

colour and in the markings of the fore wings; the interior pale line is more curved, and the exterior dark patch is of a different form.

a. Rio Janeiro. From Mr. Stevens' collection.

b. Venezuela. From Mr. Dyson's collection.

4. ENYO PROMINENS.

Viridi-ferruginea, subtus rufo-testacea; alæ anticæ lineis nonnullis obliquis undulatis fuscis guttaque discali nigra; posticæ sordide cervinæ, fusco ex parte marginatæ.

Ferruginous, tinged with green; reddish testaceous beneath. Antennæ tawny. Fore wings with several undulating oblique brown lines, and with a black discal dot. Hind wings dingy fawn-colour, dark brown towards each tip and along the adjoining part of the exterior border. Length of the body 15 lines; of the wings 27 lines.

Brazil. In Mr. Saunders' collection.

5. ENYO LYCTUS.

Ferruginea; thorax vittis duabus obliquis nigro-fuscis; abdominis fasciculus apicalis latiusculus, apud medium elongatus; alæ fusco subnebulosæ; anticæ hamatæ, fascia undulata saturatiore, apud marginem anteriorem pallidiores.

Sphinx Lyctus, *Cram. Pap. Exot.* iii. 56, pl. 225, f. F. *Fabr. Sp. Ins.* ii. 148, 38; *Mant. Ins.* ii. 96, 42. *Gmel. ed. Syst. Nat.* i. 5, 2381, 76.

Enyo Lyctus, *Hübner. Verz. Schmett.* 132, 1419.

Thyreus Lyctus, *Boisd. Herr.-Schæff. Lep. Exot. Sp. Nov. Ser. 1*, pl. 23, f. 108.

Cayenne.

a. Brazil. From Mr. Mornay's collection.

b. Brazil. From M. Becker's collection.

6. ERYO OICLUS.

Canescens; caput fusco univittatum; thorax vittis duabus antice connexis fuscis, guttis duabus anticis nigricantibus; abdomen fasciis fuscis, maculis duabus basalibus nigris quatuorque posticis rufescentibus; alæ anticæ fuscae, albido varicæ, gutta basali strigaeque postica albis, plaga discali lineisque obscure fuscis, guttis duabus discalibus, vitta margineque exteriori purpurascens; posticæ fuscae, apud angulum anteriorem albidæ, striga basali margineque exteriori nigricantibus.

	me	37.
	mm	mm
	mm	mm
6	24.6	24.6
re	37.7e	37.7e
m	mm	mm
mm	mm	mm
6	24.6	24.6
re	37.7e	37.7e

Sphinx Oiclus, *Cram. Pap. Exot.* iii. 39, pl. 216, f. C.

Hemeroplanes Oiclus, *Hübner. Verz. Schmett.* 133, 1428.

Surinam.

7. ENYO SARDANUS.

Nigro-fusca ; abdomen e maculis luteis trivittatum ; alæ anticæ cinereo variæ, apice peracutæ, margine exteriori inter apicem et angulum perobtusum concavo ; posticæ vix pallidiores.

—— Sardanus, *Boisd. MSS.*

Blackish brown. Abdomen with three rows of indistinct luteous spots. Fore wings slightly and partly clouded with cinereous bloom, very acute at the tips, concave from thence to a very obtuse angle, which is much in front of the middle of the exterior border ; interior angle slightly hooked. Hind wings hardly paler than the fore wings. Length of the body 10 lines ; of the wings 22 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

Group 2.

Alæ anticæ apice subhamatæ ; margo exteriori incisuris duabus, angulo intermedio bene determinato.

Fore wings almost hooked at the tips, with two excavations along the exterior border, and with the intermediate angle more prominent than in the 1st Group.

8. ENYO IPHIS.

Cervina subtus pallidior ; alæ anticæ fascia obliqua triplicata fusca, linea exteriori nigricante, undulis submarginalibus fuscis ; posticæ fusæ, fascia postice dilatata pallide cervina.

Perigonia Iphis, *Boisd. MSS.*

a. Brazil. From Mr. Stevens' collection.

Var. *Ochraceo-fulva, subtus rufo-testacea ; caput et thorax anticus linea dorsali lineisque quatuor posterioribus obliquis nigris ; alæ anticæ fascia obliqua fusca, intus ex parte albido marginata, extus strigas nigras emittente, apud marginem exteriorem linea undulata transversa nigra intersecta, macula magna costali subapicali testacea.*

Orange-tawny, reddish testaceous beneath. Head and fore part of the thorax with a black dorsal line, the hind part of which emits four oblique more slender black lines. Fore wings with an oblique brown band, which is bordered on the inner side by an interlined whitish band; from its outer side some black streaks proceed towards the outer border, about which the wings are sprinkled with black and traversed by a deeply undulating black line; a large costal subapical pale testaceous spot. Hind wings brown, with a testaceous band, which is intersected by two undulating black lines. Length of the body 13 lines; of the wings 26 lines.

Brazil and Cayenne. In Mr. Saunders' collection.

Group 3.

Antennæ *maris* plus pectinatæ. Thoracis crista humilis, producta. Abdomen apice compressum. Alæ latiores, apud marginem exteriorem plus denticulatæ; anticæ apud costam subconvexæ.

Antennæ of the male more distinctly pectinated than in the first group. Crest of the thorax slight and extending along the whole length. Abdomen compressed at the tip. Wings broader than in the first group, and more strongly denticulated along the exterior border. Fore wings very slightly convex in front.

9. ENYO CARINATA.

Fusca, subtus pallide purpurascens; abdomen fasciis basalibus interruptis nigris et cinereis; alæ anticæ glauco et purpurascente subnitentes, lineis plurimis transversis undulosis obscure fuscis; posticæ obscure fusæ, pallidiore variæ, ciliis albidis.

Perigonia carinata, Boisd. MSS.

Brown, mostly lilac beneath. Antennæ testaceous. Abdomen with pale cinereous and black interrupted bands towards the base. Fore wings with slight glaucous and lilac reflections, and with numerous transverse undulating dark brown lines. Hind wings dark brown, here and there paler; ciliæ whitish. Length of the body 16—18 lines; of the wings 28—32 lines.

a. Parà. Presented by J. P. G. Smith, Esq.

b. Parà. From Mr. Bates' collection.

Group 4.

Caput valde conicum. Antennæ *maris* subpectinatæ. Alæ latiusculæ; anticæ apud costam convexæ, margine exteriori medio-criter obliquo, incisuris duabus, apud medium angulato; posticæ vix denticulatæ.

Head very conical. Antennæ of the male slightly pectinated. Wings rather broad. Fore wings convex in front; exterior border moderately oblique, excavated on each side of the middle, which is somewhat angular. Hind wings hardly denticulated.

10. ENYO CHLOROPTERA.

Cinereo-fusca, ex parte viridis, subtus testaceo-albida; alæ anticæ lineis undulatis obliquis obscurioribus, gutta discali nigricante; posticæ virides, nigro late marginatæ, ciliis testaceis.

Sphinx chloroptera, Perty, Del. Anim. Artic. Bras. pl. 31, f. 3.

a. Honduras. From Mr. Dyson's collection.

Group ?

11. ENYO PAN.

Ferruginea; thorax plagis duabus lateralibus maximis fuscis; alæ anticæ fuscae viridivariæ, maculis duabus costalibus fulvis, lineis tribus arcuatis transversis interioribus, macula discali margineque exteriori purpureis, striga postica basali lutescente; posticæ basi lutescentes, vitta discali nigricante.

Sphinx Pan, Cram. Pap. Exot. iii. 39, pl. 216, f. D.

Hemeroplanes Pan, Hübn. Verz. Schmett. 133, 1425.

Surinam.

12. ENYO DANUM.

Ferruginea; thoracis latera postica viridia; alæ anticæ purpurascens, strigis variis transversis obliquis nigricantibus, margine exteriori ex parte viridescens; posticæ rufo-fuscae, apud marginem anteriorem viridi-fuscae.

Sphinx Danum, Cram. Pap. Exot. iii. 53, pl. 225, f. B.

Enyo Danum, Hübn. Verz. Schmett. 132, 1421.

Surinam.

Africa.

13. ENYO EXCISA.

Ferrugineo-fusca, subtus ferruginea; abdomen lateribus ferrugineis albo guttatis, maculis ventralibus nigris; alæ anticæ purpureo-cyanescentes, apice sordide cervinæ, macula subapicali costali nigricante testaceo marginata; posticæ pallidiores, macula apud angulum interiorem testacea.

Ferruginous-brown, ferruginous beneath. Abdomen ferruginous on each side, where there is a row of minute white dots; under side with two rows of blackish spots. Fore wings with a purplish blue tinge; tips dingy fawn-colour, with a blackish testaceous-bordered subapical costal spot. Hind wings a little paler, with a testaceous mark by the interior angle. Length of the body 14 lines; of the wings 28 lines.

Port Natal. In Mr. Saunders' collection.

Asia.

13. ENYO ANCEUS.

Rufo-purpurascens; alæ anticæ purpureæ, fasciis plurimis arcuatis fuscis, gutta discali lutea fusco marginata; posticæ nigro-fuscæ, margine cervino.

Sphinx Anceus, *Cram. Pap. Exot.* iv. 124, pl. 355, f. A.

Enyo Anceus, *Hübner. Verz. Schmett.* 132, 1423.

Amboina.

Genus 10. CIZARA.

Fœm. Corpus robustum, breve, subfusiforme. Caput productum, conicum. Proboscis longa. Antennæ setacæ, simplices, thorace paullo longiores. Abdomen obconicum, thorace vix non aut longius. Pedes longiusculi, sat validi; tibiæ posticæ calcaribus quatuor breviusculis. Alæ longæ, mediocriter latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriori perobliquum subconvexo antice subexcavato; posticæ apice rotundatæ, margine exteriori apud angulum interiorem submarginato.

Female. Body stout, short, subfusiform. Head prominent, conical. Proboscis long. Palpi as usual. Antennæ setaceous, simple, a little longer than the thorax. Abdomen obconical, not or hardly longer than the thorax. Legs rather long and stout; hind

tibiæ with four rather short spurs. Wings long, moderately broad. Fore wings straight in front, rounded at the tips; exterior border very oblique, slightly convex, slightly excavated near the tip of the wing; second inferior vein much further from the third than from the first; third about twice further from the fourth than from the second. Hind wings rounded at the tips, slightly emarginated along the exterior border towards the interior angle.

1. CIZARA ARDENIÆ.

Nigro-viridis; capitis thoracisque latera testaceo-glaucæ; caput subtus glauco-albidum; antennæ testacæ; thorax vittis duabus arcuatis testaceis; abdomen fasciis duabus abbreviatis testaceis, apicem versus lutescens; pectus ex parte femoræque posteriora rufa; tibiæ intermediæ albæ; alæ anticæ margine testaceo-cervino, ocello guttaque basalibus testaceis, fascia obliqua testacea apud costam limpida; posticæ nigro-fuscæ, striga apud angulum interiorem testacea, margine exteriori postice glaucescente.

Sphinx Ardeniæ, *Lewin, Prodr. Ent.* 3, pl. 2.

a. Australia. From Mr. Strange's collection.

b. Australia. From Mr. Stevens' collection.

Genus 11. AMBULYX.

Corpus sat gracile, aut vix robustum. Caput conicum, obtusum. Proboscis longa. Antennæ subserratæ. Abdomen longum, oblanceolatum. Pedes graciles; tibiæ posticæ calcaribus quatuor longissimis. Alæ angustæ, longissimæ; anticæ acuminatæ, margine exteriori subrecto, valde obliquo, apicem versus excavato, margine interiori apud angulum interiorem concavo; posticæ margine exteriori emarginato.

Ambulyx, *Boisd. MSS.*

Sphinx, p., *Linn.*; *Fabr.*

Pholus, p., et *Amblypterus*, p., *Hübner. Verz. Schmett.* 133, 134.

Body rather slender or hardly stout. Head prominent, conical, obtuse. Proboscis long. Antennæ minutely serrated. Abdomen long, oblanceolate. Legs slender; hind tibiæ with four very long spurs. Wings narrow and very long, especially in the typical species, *A. strigilis*. Fore wings slightly curved in front towards the tips, which are acuminate; exterior border excavated by the

tip, nearly straight, and extremely oblique from thence to the interior angle, where the interior border forms an inward curve; second inferior vein nearly twice further from the third than from the first; third more than twice further from the fourth than from the second. Hind wings somewhat emarginate along the exterior border.

1. AMBULYX STRIGILIS.

Pallide cervina, subtus lutea; capitis macula furcata inter antennis thoracisque plagæ duæ maximæ laterales ferrugineo-fuscae; antennæ albidæ; abdomen strigis obliquis lateralibus fuscis testaceo marginatis, linea dorsali fusca; alæ anticæ strigis obliquis costalibus ferruginosis, maculis strigisque variis marginalibus lineaque apud marginem exteriorem nigro-fuscis; posticæ luteæ, lineis tribus angulosis margineque exteriori fuscescentibus.

Sphinx strigilis, Linn. *Mant.* i. 538. Drury, *Ill. Exot. Ins.* i. 62, pl. 28, f. 4. Cram. *Pap. Exot.* ii. 14, pl. 106, f. B. Fabr. *Sp. Ins.* ii. 144, 22; *Mant. Ins.* ii. 95, 25; *Ent. Syst.* iii. 1, 364, 26. Gmel. *ed. Syst. Nat.* i. 5, 2377, 66.

Pholus strigilis, Hübn. *Verz. Schmett.* 134, 1437.

- a. Rio Janeiro. From Mr. Stevens' collection.
- b. Parà. From Mr. Bates' collection.
- c. Brazil. Presented by W. W. Saunders, Esq.
- d. Brazil. From Mr. Stevens' collection.
- e. West Coast of South America. Presented by Capt. Kellett and Lieut. Wood.
- f, g. Brazil.
- h—l. St. Domingo. From Mr. Tweedie's collection.

2. AMBULYX GANASCUS.

Cervina; capitis fascia inter antennis, thoracis plagæ duæ maximæ laterales abdominisque fascia basalis obscure viridi-fuscae; antennæ albæ; abdomen maculis dorsalibus fuscis aut ferrugineis; alæ anticæ glaucescente suffusæ, fascia obliqua ante basali, macula una postica alteraque costali subapicali obscure viridi-fuscis testaceo marginatis; posticæ roseæ, fasciis tribus obliquis angulosis nonnunquam dilatatis et subconnexis nigro-fuscis.

Var. β . *Alæ anticæ fascia ante basali interrupta; posticæ roseæ, lineis tribus (3a guttulari) margineque lato fuscis.*

Sphinx Ganascus, *Stoll, Cram. Pap. Exot.* v. 157, pl. 35, f. 3.

Amblypterus Ganascus, *Hübner, Verz. Schmett.* 133, 1429.

- a. Valley of the Amazon. From Mr. Bates' collection.
- b. Brazil. From Mr. Stevens' collection.
- c. Guatemala. From M. Sallé's collection.
- d. Jamaica. From Mr. Gosse's collection.
- e. Rio Janeiro. From Mr. Stevens' collection.

3. AMBULYX SUBSTRIGILIS.

Pallide cinereo-cervina, subtus lutescens; caput album; palpi, capitis fascia inter antennas, thoracisque vittæ duæ obliquæ viridescente lutea; alæ anticæ lineis nonnullis obliquis angulosis fasciaque angusta subrecta apud marginem exteriorem fuscescentibus, macula postica basim versus viridi-lutea; posticæ pallide luteæ, basi guttis fasciisque tribus angulosis obscure fuscis.

Ambulyx substrigilis, *West. Cab. Orient. Ent.* 61, pl. 30, f. 2.

This species differs much in structure from *A. strigilis*; the abdomen is shorter, the wings are much shorter and broader, and the exterior border of the fore wings is much less oblique, and is not excavated by the tip.

- a. Silhet. From the Rev. J. Stainforth's collection.

4. AMBULYX RUBRICOSA.

Ferruginea, subtus lutea; caput canum, fascia testacea; thorax antice canus, lateribus cinereis; abdomen fulvum, cinereo fasciatum; alæ anticæ basi cinereæ, fasciis tribus flavescentibus, 1a et 2a connexis, 2a fusco guttata et fasciata, 3a brevi subapicali; posticæ roseæ, apud costam testaceæ, basi fasciaque rufo-fuscis, margine exteriori cinerascens.

Ferruginous, luteous beneath. Head and thorax hoary in front, the former with a testaceous band. Palpi hoary. Antennæ white. Thorax gray on each side. Abdomen tawny, with a gray band on the hind border of each segment. Fore wings gray at the base, and with three yellowish bands; the first by the base, extending along the costa to the second, which is oblique, and contains a dot and a slender band of a dark brown hue; third sub-

apical, and not extending far from the costa. Hind wings rosy, testaceous along the costa, grayish along the interior border and about the interior angle, reddish brown at the base, and with an exterior band of the same hue. Wings beneath with red oblique undulating lines. Length of the body 18 lines; of the wings 58 lines.

This species recedes more than the preceding from the typical *A. strigilis*: the fore wings are comparatively broad, and the exterior border is straight and less oblique.

Hindustan. In Mr. Saunders' collection.

5. AMBULYX? SCHAUFFELBERGERI.

Fulvescente-cinerea, subtus aurantiaca; caput antice niveum, medio olivaceum; abdominis segmentum 2um maculis duabus olivaceis; alæ anticæ fusciscentæ nebulosæ, maculis fasciaque submarginali olivaceis, cinereo marginatæ; posticæ aurantiaco fulvæ, fusco punctatæ et nebulosæ.

Ambulix Schaufelbergieri, Bremer und Grey, Beitr. zur Schmett. Faun. Noerd. China, 53.

Ambulyx substrigilis, var.?

North China.

Genus 12. CALYMNIA.

Fœm. Corpus crassum. Proboscis longa. Palpi breves, crassissimi. Antennæ setaceæ, simplices, thorace non longiores. Abdomen thorace plus duplo longius. Pedes validi, longi; tibiæ posticæ calcaribus quatuor longissimis. Alæ longæ, sat angustæ; anticæ apice rotundatæ, apud costam vix convexæ, margine exteriori perobliquo subrecto; posticæ apice rotundatæ, margine exteriori integro.

Sphinx, p., Cram.

Amblypterus, p., Hübn. Verz. Schmett. 133.

Calymnia, Boisd. MSS.

Female. Body thick. Proboscis long. Palpi short, very thick. Antennæ setaceous, simple, not longer than the thorax. Abdomen less than twice the length of the thorax. Legs stout, long; hind tibiæ with four very long spurs. Wings long, rather narrow. Fore wings hardly convex in front, rounded at the tips, very oblique, and almost straight along the exterior border; second

inferior vein about twice further from the third than from the first ; third less than twice further from the fourth than from the second. Hind wings rounded at the tips ; exterior border entire.

1. CALYMNIA PANOPUS.

Ferruginea ; caput antice posticeque canum ; palpi apice lutei ; abdomen albidum, postice luteum disco obscure fusco ; alæ canæ testaceo variæ ; anticæ ex parte glaucescentes, fasciis duabus obliquis obscure fuscis, macula discali, guttis strigaeque costali subapicali nigricantibus, fascia submarginali nigricante extus fusco intus cervino marginata, ocello apud angulum interiorem nigro ex parte cyaneo et cervino ; posticæ fasciis tribus fuscis unaque obscure fusca intus nigro marginata.

Sphinx Panopus, *Cram. Pap. Exot.* iii. 50, pl. 224, f. A, B.

Amblypterus Panopus, *Hübner. Verz. Schmett.* 133, 1430.

Smerinthus? Panopus, *Westw. Cab. Orient. Ent.* 13, pl. 6, f. 2.

Ferruginous. Head hoary in front and behind. Palpi luteous towards the tips. Antennæ whitish. Abdomen whitish ; hind part luteous, with a dark brown disk. Wings mostly hoary and pale testaceous. Fore wings with blackish dots, and with a glaucous tinge in some parts ; an oblique dark brown band near the base and another beyond the discal spot, which is blackish ; a blackish streak near the tip of the costa, and a blackish submarginal band, which is bordered with brown on the outer side, and with fawn-colour on the inner side ; a large black ocellus by the interior angle with a fawn-coloured border, and on its inner side with three semicircular blue lines. Hind wings with three brown bands, and with a dark brown marginal band, which is traversed by the black veins, and bordered with black on the inner side. Length of the body 20 lines ; of the wings 54—60 lines.

Java.

a. Ceylon. From Mr. Cuming's collection.

b. North India. From Mr. James' collection.

Genus 13. BASIOTHIA.

Corpus validum. Caput breve. Proboscis longa. Palpi breves, crassissimi. Antennæ clavatæ, thorace breviores. Abdomen guttis lateralibus argenteis, thorace vix duplo longius. Pedes gra-

ciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ angustæ, breviusculæ; anticæ acuminatæ, apud costam rectæ, margine exteriori sat obliquo vix undulato.

Body stout. Head short. Proboscis long. Palpi short, very thick. Antennæ clavate, shorter than the thorax. Abdomen nearly twice the length of the thorax, with silvery dots on each side. Legs slender; hind tibiæ with four moderately long spurs. Wings narrow, rather short. Fore wings acuminated, straight in front; exterior border rather oblique, hardly undulating; interior border slightly concave towards the acuminated interior angle. Hind wings with the exterior border slightly excavated towards the interior angle.

1. BASIOTHIA IDRICUS.

Læte viridis; capitis thoracisque latera alba; abdomen viridicervinum, guttis lateralibus argenteis; alæ anticæ fasciis obliquis angustis obscurioribus, gutta discali maculaque apud angulum interiorem nigris, costa cervina nigro conspersa; posticæ luteæ, nigro marginatæ.

Sphinx Idricus, *Drury, Ill. Exot. Ins.* iii. 2, pl. 2, f. 2.

Bright green, paler beneath. Head and thorax with a white stripe along each side. Abdomen greenish fawn-colour, with a row of silvery white dots along each side; under side green. Fore wings with oblique slender darker bands, with a black discal dot, and a black spot on the interior angle; costa fawn-colour, speckled with black. Hind wings luteous, with blackish borders; ciliæ of the fore wings testaceous, black opposite the veins. Length of the body 12 lines; of the wings 22 lines.

a. Port Natal. From Mr. Plant's collection.

b—d. Port Natal. From M. Gueinzus' collection.

e, f. Sierra Leone. Presented by the Rev. D. F. Morgan.

Genus 14. CHÆROCAMPA.

Corpus plerumque sat gracile. Caput conicum, obtusum. Proboscis longa. Antennæ serratæ, thorace paullo longiores. Abdomen longum, oblanceolatum, apice valde acuminatum. Pedes graciles, longi; coxæ fasciculatæ; tibiæ posticæ calcaribus quatuor longis. Alæ angustæ; anticæ apud costam subrectæ, apice peracutæ, margine exteriori perobliquo fere recto; posticæ subacuminatæ.

Sphinx, p., *Linn.*; *Fabr.*; *Ochs.*; *God.*

Deilephila, p., *Ochs.*; *Boisd.*

Oreus, p., Hippotion, Isoples, Amphion, Theretra, p., et Thaumias, p., *Hübner. Verz. Schmett.* 135, 136, 138.

Chærocampa, *Duponch. Hist. Nat. Léop. Fr. Suppl.* ii. 159; *Steph.*

Metopsilus, p., *Duncan, Brit. Moths*, 154.

Body generally rather slender. Head conical, obtuse. Proboscis long. Antennæ serrate, a little longer than the thorax. Abdomen long, oblanceolate, much acuminate at the tip. Legs slender, long; coxæ with tufts of hairs; hind tibiæ with four long spurs. Wings narrow. Fore wings almost straight in front, very acute at the tips, very oblique and nearly straight along the exterior border; second inferior vein further from the third than from the first; third more than twice further from the fourth than from the second. Hind wings slightly acuminate.

Europe.

The European species form four groups.

Group 1.

Corpus et alæ roseo vittata, vix lineis metallicis ornata. Pedes non longissimi.

Body and wings with rosy stripes, and with hardly any metallic hue. Legs not very long.

Corpus robustum. Caput breve. Proboscis longiuscula. Abdomen oblanceolatum, thorace non duplo longius. Pedes longi, graciles; tibiæ posticæ calcaribus quatuor longis. Alæ longæ, sat angustæ; anticæ acuminatæ, apud costam subrectæ, margine exteriori integro subrecto perobliquo; posticæ apice subacuminatæ, margine exteriori apud angulum interiorem subinciso. *Mas.*—Antennæ serratæ, filiformes, thorace paullo longiores. *Fæm.*—Antennæ simplices, apices versus vix crassiores, thorace non longiores.

Body stout. Head short. Proboscis rather long. Palpi as usual. Abdomen oblanceolate, rather less than twice the length of the thorax. Legs long, slender; hind tibiæ with four long spurs. Wings long, rather narrow. Fore wings acuminate, almost straight along the costa; exterior border entire, almost straight, very oblique; inferior veins much as usual. Hind wings slightly acuminate; exterior border very slightly concave towards the

interior angle. *Male*. — Antennæ serrate, filiform, a little longer than the thorax. *Female*. — Antennæ simple, very slightly thicker towards the tips, not longer than the thorax.

1. CHÆROCAMPA ELPENOR.

Cervino-viridis, subtus rosea; capitis latera rosea; thorax et abdomen roseo trivittata; thoracis latera postica alba; abdomen maculis duabus lateralibus basalibus nigris; alæ anticæ macula basali nigra, costa fasciisque tribus obliquis roseis; posticæ roseæ, dimidio fere basali nigro, ciliis albis.

———, *Mouff. Ins.* 183. *Albin, Nat. Hist. Engl. Ins.* pl. 9, f. 13. *Petiv. Gazoph.* pl. 40, f. 11, 112, 17. *Rai, Ins.* 145. 2; 146, 3; 281, 16. *Merian, Ins. Eur.* ii. 33, f. 73. *Röes. Ins. Bel.* i. *Phal.* i. 25, pl. 4, f. 1—7. *Frisch, Ins.* xii. 1, pl. 1, f. 1—3. *Wilk. Pap.* ii. pl. 1, B. *Harr. Ins.* 14, pl. 7, f. a—h. *Geoff. Ins. Par.* ii. 86, 10. *Deg. Ins.* i. 694, pl. 9, f. 8, 9. *Schæff. Icon.* pl. 96, f. 4, 5. *Engr. Pap. d'Eur.* iii. 99, pl. 112, f. 160, a—g.

Sphinx Elpenor, Linn. Faun. Suec. 288, 1089; *Mus. Lud. Utr.* 355, 15; *Syst. Nat.* i. 2, 801, 17. *Scop. Ent. Carn.* 186, 472. *Fabr. Sp. Ins.* ii. 148, 43; *Mant. Ins.* ii. 97, 47; *Ent. Syst.* iii. 1, 372, 51; *Esp. Schmett.* ii. 91, pl. 9, f. 1—4, 200, pl. 27. *Gmel. ed. Syst. Nat.* i. 5, 2382, 17. *Hübner. Sphing.* 96, 3, pl. 10, f. 61; *Larv. Lep.* ii. *Sph.* iii. *Leg.* B, b, f. 2, a, b. *Wien. Verz.* 43, 3. *Illig. N. Ausg. dess.* i. 17, 3. *H.-Schæff. Icon. Nom. Panz.* 107. *Müll. Zool. Dan.* 116, 1338. *Donov. Nat. Hist. Brit. Ins.* iv. pl. 122. *Bork. Eur. Schmett.* ii. 66, 136, 178, 2; *Rhein. Mag.* i. 315, 141. *Hüfn. Berl. Mag.* ii. 2, 1807. *Naturf.* xxviii. 78. *Vieweg, Tab. Verz.* i. 8, 9. *Rossi. Faun. Etr.* ii. 162, 1054; *Ed. Illig.* 261, 1054. *Fuessl, Schw. Ins.* 32, 618; *A. Mag.* i. 2, 265. *Schrank, Faun. Boic.* ii. 1, 227, 1391. *Lang. Verz.* ii. 69, 567, 568. *Brahm, Ins. Kal.* 528, 386. *Schwarz, Raup.* 353, 494. *Ochs. Schmett. von Eur.* ii. 209, 3. *God. Hist. Nat. Léop. Fr.* iii. 46, pl. 18, f. 3.

Oreus Elpenor, Hübn. Verz. Schmett. 136, 1463.

Deilephila Elpenor, Steph. Ill. Brit. Ent. Haust. i. 131. *Boisd. Ind. Méth.* 46, 375.

Chærocampa Elpenor, Westw. & Humph. Brit. Moths, i. 22, pl. 51, f. 7, 8. *Steph. Cat. Brit. Lep.* 29.

a—j. England. From Mr. Stephens' collection.

k, l. England. From Mr. Foxcroft's collection.

m—n. England.

o—q. Europe. From M. Becker's collection.

Var. Larger. Antennæ rosy. Wings beneath with the rose-colour spreading more over the surface, and extending to the costa in the fore wings.

a. North India. From Mr. Stevens' collection.

b. Silhet. Presented by J. Macgillivray, Esq.

c. Silhet. Presented by E. Doubleday, Esq.

Group 2.

Corpus et pedes argenteo vittata. Pedes longissimi. Alæ posticæ plus minusve roseæ.

Body and wings with silvery stripes. Legs very long. Hind wings more or less rosy.

2. CHÆROCAMPA CELERIO.

Cervina; capitis thoracisque latera albida; thorax cano trivittatus, argenteo bilineatus; abdomen nigro strigatum et e strigis argenteis trivittatum; alæ anticæ strigis anterioribus vittisque duabus posterioribus duplicatis argenteis; posticæ roseæ basi saturatiores vittis duabus (postica angusta) venisque nigro-fuscis.

———, *Petiv. Gazoph.* pl. 12, f. 9. *Rai, Ins.* 159, 9. *Goëd. Ins.* 3, f. 4. *List. Goëd.* f. 26. *Frisch. Ins.* xiii. pl. 2, f. 1—3. *Röes. Ins. Bel.* iv. 59, pl. 8. *Engr. Pap. d'Eur.* iii. 94, pl. 110, f. 157.

Sphinx Celerio, Linn. Syst. Nat. i. 2, 800, 12. *Fabr. Sp. Ins.* ii. 151, 50; *Mant. Ins.* ii. 97, 54; *Ent. Syst.* iii. 1, 370, 43. *Cram. Pap. Exot.* ii. 42, pl. 25, f. E. *Esp. Schmett.* ii. 83, pl. 8, f. 1—3; 201, pl. 28, f. 1, pl. 45, f. 3. *Gmel. ed. Syst. Nat.* i. 5, 2379, 12. *Hübner. Sphing.* 96, 4, pl. 10, f. 59; *Larv. Lep.* ii. *Sph.* iii. *Leg. B, a, b, p. 1, a, b.* *Wien. Verz.* 42, 2. *Ill. N. Ausg. dess.* i. 16, 2. *Bork. Eur. Schmett.* ii. 70, 138, 178, 3; *Rhein. Mag.* i. 315, 142. *Hüfn. Tab. Berl. Mag.* ii. 2, 182, 12. *Fuessl. N. Mag.* ii. 4, 371; *Schw. Ins.* 32, 617. *Vieweg, Tab. Verz.* i. 10, 13; *Lang. Verz.* ii. 67, 565. *Schwarz, Raup.* 509, 634. *Ochs. Schmett. von Eur.* ii. 205, 2. *Frey. Neu. Brit. Schmett.* vi. 62, 950, pl. 518; 106, 1006, pl. 548. *God. Hist. Nat. Léop. Fr.* iii. 43, pl. 18, f. 2.

Deilephila inquilinus, Harr. Ex. 93, pl. 28, f. 1.

Hippotion Celerio, Hübn. Verz. Schmett. 135, 1450.

Hippotion Ocys, Hübn. Verz. Schmett. 135, 1451.

Deilephila Celerio, *Steph. Ill. Brit. Ent. Haust.* i. 128. *Boisd. Ind. Méth.* 47, 379.

Chærocampa Celerio, *Steph. Cat. Brit. Lep.* 28.

a, b. England. From Mr. Stephens' collection.

c. North India. From Mr. Argent's collection.

d, e. North India. From Mr. Stevens' collection.

f, g. Teneriffe.

h. Port Natal. From Dr. Krauss' collection.

i. Zoolu Country, South Africa. Presented by G. F. Angas, Esq.

j. Cape.

k—m. Port Natal. From M. Gueinzius' collection.

n, o. South Africa. Presented by Dr. A. Smith.

p. ———? From the Voyage of H.M.S. Herald.

Var. *Cervina*, *subtus cana*; *capitis thoracisque latera cana*; *caput subtus album*; *thorax cano trivittatus*, *vittis duabus lateralibus maculisque duabus posticis auratis*, *lineis duabus exterioribus argenteis*; *abdomen e strigis argenteis trivittatum*; *alæ anticæ strigis discalibus argenteæ perobliquis*, *vitta posteriore lineaque marginali argenteis*; *posticæ roseæ*, *basi saturatiores*, *fusco bifasciatæ*.

Fawn-colour, hoary beneath. Head and thorax hoary along each side. Head white beneath. Thorax with three hoary middle stripes, with two pale gilded lateral stripes, with two pale gilded posterior spots, and with two silvery white exterior lateral stripes. Abdomen with alternate pale and dark streaks, and adorned with three stripes of silvery white streaks. Fore wings with very oblique silvery white discal streaks, with a posterior silvery stripe, and with a silvery line, which extends along the interior border, and is continued thence to the tip of the wing at a short distance from the exterior border. Hind wing rosy, brightest at the base, with two dark brown stripes, the discal one shorter and broader than the other, which is submarginal. Length of the body 16—17 lines; of the wings 28—30 lines.

This variety may be distinguished by the bright silvery colour of the discal streaks of the fore wings, and the silvery marks elsewhere are also more bright.

a, b. Sydney. From Mr. Lambert's collection.

Group 3.

This group much resembles the second, but the colours are paler, the metallic hue less prevalent.

3. CHÆROCAMPA ALECTO.

Ferrugineo-fusca, subtus lutescens; capitis thoracisque latera alba; abdomen cervinum, maculis duabus basalibus lateralibus nigris; alæ ciliis rufescentibus; anticæ lineis subobliquis subparallelis obscurioribus et pallidioribus, margine exteriori glaucescente; posticæ læte roseæ, basi nigræ, margine exteriori fusco, plaga apud angulum interiorem roseo-albida.

Sphinx Alecto, *Linn. Mus. Lud. Ulr.* 357; *Syst. Nat.* 802, 20. *Drury, Ins. Exot.* ii. 48, pl. 27, f. 4. *Cram. Pap. Exot.* ii. 62, pl. 137, f. D. *Fabr. Sp. Ins.* ii. 152, 52; *Mant. Ins.* ii. 97, 56; *Ent. Syst.* iii. 1, 376, 59. *Gmel. ed. Syst. Nat.* i. 5, 2384, 20. *Ménét. Cat. Obj. Zool. Caucase*, 258, 1237.

Isoples Alecto, *Hübner. Verz. Schmett.* 135, 1453.

Deilephila Cretica, *Boisd. Icon. Hist. Lép. Sphing.* 20. (Fœm.), *Duponch. Hist. Nat. Lép. Fr.* iii. *Suppl.* 15, pl. 1, f. 3.

Deilephila Alecto, *Boisd. Ind. Méth.* 46, 376.

Greece. Caucasus.

a, b. North India. From Mr. James' collection.

c. Java. From the East India Company's collection.

d, e. Silhet. From the Rev. J. Stainforth's collection.

h. Landoor, N.W. Himalaya. Presented by Gen. Hearsay. "Larva feeds on the vine," *MSS.*

i. Hong Kong. From Mr. Stevens' collection.

j. North India. From Mr. Stevens' collection.

k, l. Turkey in Asia. Presented by W. K. Loftus, Esq.

Group 4.

Distinguished by the slender body, the narrow and much acuminate wings, and the hind wings without any rosy hue.

4. CHÆROCAMPA CRETICA.

*Fusca; caput et thorax albo bivittata; abdomen basi nigro bima-
culatum, linea media obscura, lateribus pallidioribus; alæ
anticæ cinereo umbrinæ striis obliquis punctoque discali fus-
cis; posticæ angulo anali dilutiore.*

Sphinx Cretica, *Boisd. Ann. Soc. Linn. Paris*, 1827, 118, pl. 6, f. 5.
Deilephila Cretica, *Boisd. Icon. Hist. Léop. Sphing.* 20, pl. 49, f. 2,
 (mas.); *Ind. Méth.* 47, 377.

Sphinx Boisduvalii, *Buegnion, Ann. Soc. Ent. Fr.* viii. 113.

Chærocampa Clotho, var.?

Greece. Turkey.

North America.

5. CHÆROCAMPA TERSA.

Fusca, subtus testacea; caput et thorax vittis duabus lateralibus albidis; abdomen vittis duabus aut tribus cervinis; alæ subtus pallide luteæ, fusco vittatæ nigroque conspersæ, margine exterioriore pallide purpureo; anticæ cinerascens lineis plurimis subobliquis fuscescentibus; posticæ fuscæ, basi nigro-fuscæ, vitta maculari albida.

Sphinx Tersa, *Drury, Ins. Exot.* i. 61, pl. 28, f. 3. *Cram. Pap. Exot.* iv. 226, pl. 397, f. C. *Fabr. Sp. Ins.* ii. 153, 59; *Mant. Ins.* ii. 98, 65; *Ent. Syst.* iii. 1. *Gmel. ed. Syst. Nat.* i. 5, 2379, 71.
Abbot & Smith, Nat. Hist. Lep. Ins. Georg. i. 75, pl. 38.

Theretra Tersa, *Hübner, Verz. Schmett.* 135, 1449.

Chærocampa Tersa, *Harris, Amer. Journ. Sci.* xxxvi. 303, 4.

Metopsilus Tersa, *Duncan, Nat. Libr.* xxxvii. pl. 5, f. 1; pl. 6, f. 1.

Southern United States.

a—d. Brazil. From Mr. Mornay's collection.

e, f. Mexico. From Mr. Hartweg's collection.

g, h. St. Domingo. From Mr. Tweedie's collection.

6. CHÆROCAMPA? VERSICOLOR.

Pallide olivacea, viridi alboque varia; capitis thoracisque latera vittaque dorsalis alba; alæ anticæ lineis angustis arcuatis albis et olivaceo-viridibus lineaque apicali angulata alba; posticæ ferrugineæ, marginibus olivaceo viridibus.

Chærocampa versicolor, *Harris, Amer. Journ. Sci.* xxxvi.

"Light olive, variegated with olive-green and white. Tips of the palpi, a line on each side of the head above the eyes, a longitudinal dorsal line from the front to the tail, and the edges of the prothorax and of the tegulæ, white; two spots on the meta-thorax, and the abdominal segments on each side of the dorsal line tinged with dark buff. Fore wings with narrow curved bands of white and olive-green, and a zigzag white line at the tip. Hind

wings rust-coloured, with the inner and the hind margin olive-green."

United States.

Mexico.

Group 1.

Colour mostly green. Abdomen slightly gilded on each side. Legs very long. Fore wings without distinct lines.

7. CHÆROCAMPA CHIRON.

Viridis, nonnunquam ferrugineo-cervina, lateribus subtusque albido-testacea; alæ anticæ striga postica basali pallide flava, fascia obliqua exteriori irregulari testacea; posticæ nigræ fascia guttulari pallide flava.

Sphinx Chiron, *Drury, Ill. Exot. Ins.* i. 56, pl. 26, f. 3.

Sphinx Nechus, *Cram. Pap. Exot.* ii. 12, 5, pl. 178, f. B. *Fabr.*

Sp. Ins. ii. 152, 56; *Mant. Ins.* ii. 98, 61; *Ent. Syst.* iii. 1, 377, 63. *Gmel. ed. Syst. Nat.* i. 5, 2384, 89.

Theretra Nechus, *Hübner. Verz. Schmett.* 135, 1447.

a. Mexico. Presented by E. Doubleday, Esq.

b. Monte Video. Presented by C. Darwin, Esq.

c. Brazil. Presented by W. W. Saunders, Esq.

d, e. St. Domingo. From Mr. Tweedie's collection.

Group 2.

Distinguished by the very acute and somewhat hooked fore wings.

8. CHÆROCAMPA FALCO.

Cervina, subtus albido-testacea; capitis thoracisque latera albida; thoracis discus cinereo-fuscus; abdomen fuscum, vittis duabus lateralibus cervinis lineaque duplicata dorsali albida; alæ anticæ subhamatæ, gutta discali nigra lineisque nonnullis nigricantibus subobliquis posterioribus; posticæ vittis duabus nigricantibus, margine exteriori submarginato.

Fawn-colour, whitish testaceous beneath. Head and thorax with a whitish stripe along each side. Disk of the thorax cinereous-brown. Abdomen brown, with a fawn-coloured stripe along each side, and a double dorsal whitish line. Fore wings with blackish speckles, with a blackish discal dot, and with several blackish slightly oblique posterior lines, slightly hooked and more

acute at the tips than in the other species of this genus. Hind wings with two blackish stripes; exterior border slightly emarginate. Length of the body 15—19 lines; of the wings 30—40 lines.

a. Mexico. Presented by E. Doubleday, Esq.

b—g. Mexico. From Mr. Hartweg's collection.

9. CHÆROCAMPA DRANCUS.

Nigro-fusca, vitta media necnon capitis thoracisque lateribus albidis; thorax et abdomen luteo bivittata; alæ anticæ striga basali dimidioque postico exterioriore cervinis, lineis exterioribus ferrugineis et nigris, gutta discali plagisque duabus posticis nigris.

Sphinx Drancus, *Cram. Pap. Exot.* ii. 56, pl. 132, f. F.

Xylophanes Drancus, *Hübner. Verz. Schmett.* 136, 1460.

West Indies.

South America.

Group 1.

Much like the preceding group, but more or less tinged with green. Fore wings with distinct lines.

10. CHÆROCAMPA CROTONIS.

Viridescence-cervina, subtus lutea; caput et thorax albido bilineata; abdomen plagis duabus basalibus nigris, lateribus luteis, subtus albidum; alæ anticæ macula basali guttaque discali nigris lineisque nonnullis exterioribus subparallelis fuscis; posticæ nigræ, fascia maculari pallide flava.

Var. β. Thorax et abdomen vitta dorsali albida.

Var. γ. Alæ anticæ virides.

Chærocampa Crotonis, *Boisd. MSS.*

Greenish fawn-colour, pale luteous beneath. Head and thorax with a whitish line along each side. Abdomen with a black patch along each side at the base, luteous along each side; disk beneath whitish. Fore wings with a black spot at the base, with a black discal dot, and with several exterior nearly parallel brown lines. Hind wings black, with a macular pale yellow band. Length of the body 17—20 lines; of the wings 36—40 lines.

Var. β. Green. Head and thorax with a more distinct whitish stripe along each side. Thorax and abdomen with a whitish dorsal stripe. Abdomen fawn-coloured towards the tip. Fore wings green. Wings darker, luteous and speckled beneath, otherwise as in *var. α*.

Var. γ like *var. β*. Fore wings greenish brown.

Var. δ. Pale fawn-colour. Hind wings black, with the pale band further from the exterior than in the other vars. Exterior border pale fawn-colour.

a—c. Venezuela. From Mr. Dyson's collection.

11. CHÆROCAMPA AMADIS.

Nigricans; thorax vitta purpurascente, lateribus flavescentibus; abdomen viride, lateribus testaceis; alæ anticæ virides, costa flava fusco marginata, vitta obliqua alba postice fusco marginata, plaga discali fusca, margine exteriori testaceo nigro guttato; posticæ vitta testacea, margine postico viridi.

Sphinx Amadis, *Cram. Pap. Exot.* iv. 216, pl. 394, f. C.

Oreus Amadis, *Hübner. Verz. Schmett.* 136, 1464.

Surinam.

12. CHÆROCAMPA NEOPTOLEMUS.

Fusca; caput antice testaceum; thorax testaceo marginatus; abdomen ochraceum, vittis duabus postice connexis cinereis; alæ anticæ peracutæ subhamatæ, venis cinereis, vittis exterioribus testaceis; posticæ apud costam nigræ, vitta media rufa.

Sphinx Neoptolemus, *Cram. Pap. Exot.* iv. 23, pl. 301, f. F.

Isoples Neoptolemus, *Hübner. Verz. Schmett.* 135, 1454.

Surinam.

13. CHÆROCAMPA ANUBUS.

Fusco-cervina; caput et thorax anticus lateribus albidis; thorax lateribus purpurascentibus, maculis duabus posticis nigris; abdomen vittis duabus purpurascentibus; alæ anticæ ferrugineæ, striga postica basali plagaque discali lineisque exterioribus fuscis, costa vittaque submarginali dilatata cervinis; posticæ nigræ, vitta maculari subpurpurascente, margine postico cervino.

Sphinx Anubus, *Cram. Pap. Exot.* ii. 46, pl. 128, f. C. *Fabr. Sp. Ins.* ii. 152, 56; *Mant. Ins.* ii. 98, 60; *Ent. Syst.* iii. 1, 376, 62. *Gmel. ed. Syst. Nat.* i. 5, 2384, 88.

Surinam.

Africa.

Group 1.

Structure of *C. Celerio*.

14. CHÆROCAMPA OSIRIS.

Cervina; *capitis thoracisque antici latera subroseo-albida*; *thorax vittis quatuor lateralibus argenteis unaque media subroseo-alba*; *abdomen lineis tribus (media duplicata subrosea, lateralibus interruptis) argenteis, lateribus basi subroseis nigro quadrinotatis*; *alæ anticæ vittis tribus subroseo-argenteis ex parte nigro marginatis, striga basali guttaque discali nigris*; *posticæ roseæ, basi saturatiores, vittis duabus nigro-fuscis*.

Deilephila Osiris, *Dalm. Analecta Entom.* 48, 21. *Boisd. Icon. Hist. Lép. Sphing.* 18, pl. 49, f. 1; *Gen. et Ind. Méth. Eur. Lép.* 47, 378. *Duponch.*

Fawn-colour. Head and fore part of the thorax pinkish white along each side. Head whitish beneath. Thorax with a pinkish white middle stripe, and with four lateral silvery stripes. Abdomen with three silvery lines, the middle one double and with a pinkish hue, the lateral pair interrupted; basal part pinkish on each side, and with a widely interrupted black band, near which there are two lateral black spots. Fore wings with three pinkish silvery stripes, which are partly bordered with black; the first irregular and accompanied by a black basal streak and a black discal dot; the middle one triple; the third along the exterior border, and nearly triple; a silvery white line along the interior border. Hind wings rosy, brightest at the base, with two blackish brown stripes, the first interrupted, the second broader than that of *C. Celerio*, from which *C. Osiris* is especially distinguished by the black marks on the abdomen. Length of the body 17—21 lines; of the wings 34—36 lines.

- a.* Port Natal. From M. Gueinzius' collection.
b, c. ———? Presented by E. Doubleday, Esq.
d. Sierra Leone. Presented by the Rev. D. F. Morgan.

This species also inhabits North Africa, and is supposed to have once occurred in South Spain.

15. CHÆROCAMPA CHARIS.

Ferrugineo-fusca, subtus rufescens aut albida; capitis thoracisque latera albida; thorax et abdomen vittis duabus rufo-fulvis auratis, ille vitta dorsali cana; abdomen lineis duabus dorsalibus argenteo-albis, subtus e guttis nigris bivittatum; alæ anticæ vitta discali fusca vittisque duabus posterioribus interruptis purpureo-cinereis, gutta discali nigra, venis discalibus argenteo-albis; posticæ roseæ, fusco marginalæ, ciliis ex parte albis.

Deilephila Charis, Boisd. MSS.

Ferruginous-brown, reddish or whitish beneath. Head and thorax with a whitish stripe along each side. Thorax and abdomen with two reddish fawn-coloured interior stripes, which are mostly gilded. Thorax with a hoary dorsal stripe. Abdomen with two silvery white dorsal lines; under side with two rows of black dots. Fore wings with a brown discal stripe, and with two posterior interlined purplish cinereous stripes, the hind one marginal; a black discal dot; veins in the disk silvery white. Hind wings bright rosy-red; hind border brown; ciliæ partly white. Length of the body 12 lines; of the wings 20 lines.

- a, b.* Port Natal. From Mr. Plant's collection.
c—e. Port Natal. From M. Gueinzius' collection.
f, g. Port Natal. From Mr. Stevens' collection.

16. CHÆROCAMPA CELERIONINA.

Cervina, subtus albo vittata; capitis latera albida; thorax et abdomen aureo subvittata; thorax lateribus vittaque media cinereis; abdomen linea duplicata argentea; alæ anticæ gutta discali nigro-fusca vittaque triplici subobliqua argentea; posticæ fascia marginali fusca.

Deilephila Celerionina, Boisd. MSS.

Fawn-colour, paler and with a white stripe beneath. Head whitish on each side and beneath. Thorax and abdomen with two indistinct and interrupted gilded stripes. Thorax cinereous on each side, and with a cinereous middle stripe. Abdomen much paler on each side, with a double silvery white line, which is single towards the tip. Fore wings with a dark brown discal dot, and with a triple slightly oblique silvery stripe. Hind wings much paler, with a brown marginal band. Length of the body 10 lines; of the wings 20 lines.

a. Congo. Presented by Sir. J. Richardson.

Group 2.

Like the third European group.

17. CHÆROCAMPA ESON.

Viridi-fusca, subtus rufescente fulvenscens; capitis thoracisque latera albida; abdomen cervinum, lineis pallidioribus, vittis duabus lateralibus auratis; alæ anticæ lineis plurimis subparallelis plus minusve angustis fuscis, gutta discali nigra; posticæ rubræ, basi costaque nigris, margine exteriori fusciscente.

Var. β . *Thorax vitta media et alæ anticæ apud medium albido testacea.*

Var. γ . *Minor; alæ posticæ rubræ, fusco marginatæ.*

Sphinx Boechaviæ, *Fabr. Sp. Ins.* ii. 148, 39; *Mant. Ins.* ii. 96, 43; *Ent. Syst.* iii. 1, 371, 46. *Sulz. Hist. Ins.* pl. 20, f. 3. *Gmel. ed. Syst. Nat.* i. 5, 2381, 77.

Var. Sphinx Pluto, *Fabr. Sp. Ins.* ii. 148, 40.

Sphinx Eson, *Cram. Pap. Exot.* iii. 57, pl. 226, f. C.

Var. Sphinx Theylia, *Linn. Mus. Lud. Ulr.* 360; *Syst. Nat.* i. 2, 803, 24. *Clerck, Icon.* pl. 46, f. 7, 8. *Cram. Pap. Exot.* iii. 1, 58, pl. 226, f. E. *Fabr. Sp. Ins.* ii. 153, 60; *Mant. Ins.* ii. 98, 67; *Ent. Syst.* iii. 1, 378, 70. *Gmel. ed. Syst. Nat.* i. 5, 2386, 24.

Isoples Eson, *Hübner. Verz. Schmett.* 135, 1452.

Isoples Theylia, *Hübner. Verz. Schmett.* 1455.

C. Eson in Asia is very generally of small size, and in Africa of large size, but the latter variety also occurs in Asia.

- a.* Cape. From M. Becker's collection.
b, c. Silhet. From the Rev. J. Stainforth's collection.
d, e. Congo. Presented by Sir J. Richardson.
f. ———? From Mrs. Henry's collection.
g, h. Sierra Leone. Presented by the Rev. D. F. Morgan.
i. Ceylon. Presented by R. Templeton, Esq.
j—l. Canara. Presented by S. N. Ward, Esq.
m. Java. From the East India Company's collection.
n—p. North India. From Mr. Stevens' collection.
q—v. North India. From Mr. James' collection.
u. North Bengal. Presented by W. W. Saunders, Esq.
w. North India. From Mr. Argent's collection.
x. Ceylon. From the Rev. J. Wenham's collection.
y. North India. Presented by General Hearsay.
z. Scinde? From Mr. Warwick's collection.
aa. ———?

18. CHÆROCAMPA BALSAMINÆ.

Cervina, subtus luteo-albida; caput et thorax vittis duabus albido testaceis; abdomen lineis septem fuscescentibus, lateribus subluteis; alæ anticæ punctis duobus nigris discalibus lineisque nonnullis subparallelis fuscescentibus; posticæ vitta discali margineque exteriori fuscescentibus.

Deilephila Balsaminæ, Boisd. MSS.

Fawn-colour, whitish and partly pale luteous beneath. Head and thorax with two whitish testaceous stripes. Abdomen with seven brownish dorsal lines, slightly luteous along each side. Fore wings with two black discal points, and with several exterior more or less parallel brownish lines. Hind wings with a brownish stripe in the disk, and another along the exterior border. Wings beneath pale luteous, speckled with black, and with a line of black dots. Length of the body 14—15 lines; of the wings 26 lines.

- a.* Port Natal. From Mr. Plant's collection.
b, c. Port Natal. From M. Gueinzus' collection.

19. CHÆROCAMPA GORDIUS.

Fœm. Cervina; palpi ex parte albidi; capitis latera albida; thorax vitta dorsali subrosea vittisque quatuor lateralibus albidis; abdomen lineis tribus duplicatis albidis; alæ anticæ vittis nonnullis parallelis nigricantibus, vittis duabus posterioribus, lineisque duabus apud marginem exterioriorem albidis, striga basali, gutta discali maculaque apud angulum interiorem nigris; posticæ fusco trivittatæ.

Sphinx Gordius, Cram. Pap. Exot. iv. 147, pl. 367, f. A.

Female. Fawn-colour, paler beneath. Antennæ clavate, a little shorter than the thorax. Palpi partly whitish. Head whitish on each side. Thorax with a dorsal pinkish stripe, and with four lateral whitish stripes, the outer pair partly pinkish. Abdomen with three double whitish lines. Fore wings paler along the costa, with some slight parallel blackish stripes, and with two posterior whitish stripes, the fore one much broader than the other; two whitish lines along the exterior border, the outer one sprinkled with black, and with a slight pinkish hue; a black basal streak, a black discal dot, and a black spot by the interior angle. Hind wings with three brown stripes, and with a lilac tinge along the exterior border. Length of the body 14 lines; of the wings 27 lines.

- a. Port Natal. From M. Gueinzus' collection.
- b. Cape. From M. Dregé's collection.
- c. Zoolu Country. Presented by G. F. Angas, Esq.
- d. South Africa. From Mr. Pamplin's collection.
- e. Cape.

20. CHÆROCAMPA CAIUS.

Viridi-fusca; capitis thoracisque antici latera alba; abdomen vittis tribus luteis, lateralibus antice abbreviatis; alæ anticæ macula basali alba, vittis lutescentibus, costa vittaque latiore albidis, necnon vittis purpurascentibus et nigris; posticæ cervinæ, costa lata lineaque nigris, margine exteriore purpurascente.

Sphinx Cajus, *Cram. Pap. Exot.* ii. 80, pl. 146, f. F.

Xylophanes Cajus, *Hüb. Verz. Schmett.* 136, 1459.

C. Oldenlandiæ, *Var.?*

Cape.

Group 3.

Distinguished from the preceding group by the broader and less acute fore wings.

21. CHÆROCAMPA CAPENSIS.

Pallide cervina, subtus testacea; capitis thoracisque latera albida; abdomen nonnunquam testaceum; alæ anticæ plaga discali lineaque obliqua exteriore obscurioribus; posticæ roseæ, cervino marginatæ.

Sphinx Capensis, *Linn. Mus. Lud. Ulr.* 349. *Gmel. ed. Syst. Nat.* i. 5, 2379, 10.

Sphinx *Æas*, *Cram. Pap. Exot.* iii. 57, pl. 226, f. A.
Thaumas Capensis, *Hübner. Verz. Schmett.* 138, 1477.

a. Cape. From M. Dregé's collection.

b—d. Cape. From Mr. Milne's collection.

e, f. Port Natal. From M. Gueinzus' collection.

g. Zoolu Country. Presented by G. F. Angas, Esq.

h. South Africa. Presented by Dr. A. Smith.

i. Cape. From M. Becker's collection.

Asia.

Group 1.

Much like the first South American group.

22. CHÆROCAMPA NESSUS.

Luteo-viridis, subtus lutescens; capitis abdominisque latera canescentia; abdomen aurato-luteum, basi vittaque lata viridibus; alæ anticæ viridescens-cervinæ, apud medium pallidiores, lineis parallelis subobliquis nebulisque fuscis, plaga costali apicali albida; posticæ nigricantes vitta diffusa postica testacea.

Var. β . *Thoracis latera pallide purpurea.*

Var. γ . *Cervina, subtus lutescens; caput et thorax ferrugineo-cervina lateribus albido-testaceis; abdomen aurato bivittatum; alæ anticæ vitta media lata albido testacea, antice et postice ferruginosæ, lineis nonnullis rectis aut undulosis fuscis, macula basali postica nigra; posticæ nigræ vitta postica abbreviata cervina.*

Sphinx *Nessus*, *Drury, Ill. Exot. Ins.* ii. 46, pl. 27, f. 1.

a. North India. From Mr. James' collection.

b. East Indies. From Archdeacon Clerk's collection.

c. Ceylon. Presented by R. Templeton, Esq.

d. Canara. Presented by S. N. Ward, Esq.

e. Silhet. From the Rev. J. Stainforth's collection.

f. Hong Kong. Presented by J. C. Bowring, Esq.

g. Java. From the East India Company's collection.

23. CHÆROCAMPA CLOTHO.

Pallide viridescente cervina, lateribus subtusque albido-testacea; abdomen basi maculis duabus lateralibus nigris; alæ anticæ apud costam obscuriores, macula basali nigra, gutta discali lineisque duabus exterioribus obliquis fuscis; posticæ nigræ, vitta lata marginali testacea ex parte fusca.

Var. β . *Alæ anticæ nigro conspersæ, lineis nonnullis (una guttulari) obliquis fuscis.*

Var. γ . Var. β . *similis. Alæ anticæ linea una obliqua fusca.*

Var. δ . *Cervina; alæ anticæ lineis nullis fuscis.*

Var. ϵ . *Cervino-testacea.*

Var. ζ . *Alæ posticæ totæ nigricantes.*

Sphinx Clotho, *Drury, Exot. Ins.* ii. 48, pl. 28, f. 1. *Fabr. Syst. Ent.* 540, 12; *Mant. Ins.* ii. 97, 57; *Ent. Syst.* iii. 1, 376, 60. *Gmel. ed. Syst. Nat.* i. 5, 2384, 85.

Var. ρ *Deilephila Cyrene, Westw. Cab. Orient. Ent.* 13, pl. 6, f. 1.

Cape?

a. Silhet. From Mr. Sowerby's collection.

b, c. Silhet. Presented by E. Doubleday, Esq.

d. North India. From Mr. James' collection.

e. Hindostan. From Archdeacon Clerk's collection.

f. North India. From Mr. Stevens' collection.

g, h. Ceylon. Presented by R. Templeton, Esq.

i. Ceylon. From the Rev. J. Wenham's collection.

j, k. Java. From the East India Company's collection.

l. Hindostan? From Mr. Stevens' collection.

Group 2.

Like the third European group.

24. CHÆROCAMPA LUCASII.

Pallide cervina, subtus albido-testacea; caput antice thoracisque latera albido-testacea; alæ anticæ nigro conspersæ, lineis obliquis subparallelis guttaque discali nigra; posticæ nigricantes, ex parte cervinæ.

Deilephila Lucasii, Boisd. MSS.

Pale fawn-colour, whitish testaceous beneath. Head in front and sides of the thorax whitish testaceous. Fore wings speckled with black, with indistinct oblique more or less parallel brownish lines, and with a black discal dot. Hind wings blackish, partly pale fawn-colour in front and behind. Length of the body 15—16 lines; of the wings 30—32 lines.

a—c. North India. Presented by E. Doubleday, Esq.

d. North India. From Mr. James' collection.

e. Silhet. From the Rev. J. Stainforth's collection.

25. CHÆROCAMPA OLDENLANDIÆ.

Fusca, subtus luteo-albida; palpi albo maculati; antennæ pedesque albida; capitis thoracisque antici latera hujusque vitta cana; thorax lineis duabus lateralibus auratis duabusque exterioribus argenteis; abdomen linea duplicata dorsali argentea vittisque duabus lateralibus auratis; alæ anticæ striga basali cana, vitta lineisque duabus exterioribus argenteis, gutta discali nigra, margine exteriori glaucescente; posticæ basi vittaque testaceis.

Sphinx Oldenlandiæ, *Fabr. Sp. Ins.* ii. 148, 37; *Mant. Ins.* ii. 96, 41; *Ent. Syst.* iii. 1, 370, 44. *Gmel. ed. Syst. Nat.* i. 5, 2381, 75. *Lewin, Prodr.* 4, pl. 3.

Xylophanes Gortys, *Hübner, Zeit. Samml. Exot. Schmett.* 28, 513, 514.

This species much resembles *C. Gordius*, but differs in several characters, among which the most conspicuous is its having no black mark by the interior angle of the fore wings.

a. North Bengal. Presented by W. W. Saunders, Esq.

b—d. North India. From Mr. James' collection.

e, f. Landoor, N. India. Presented by General Hearsay. "The larva feeds on the balsam."—*MSS.*

g. North India. From Mr. Argent's collection.

h. Nepaul. Presented by Major-General Hardwicke.

i, j. North India. From Mr. Stevens' collection.

k. Java. From the East India Company's collection.

l. Australia. From Dr. Stevenson's collection.

m. Sydney. From Mr. Lambert's collection.

26. CHÆROCAMPA LYCETUS.

Fusca ; caput et thorax anticus albido bivittata ; abdomen vitta media alba duabusque lateralibus luteis duplicatis ; alæ anticæ cervinæ, costa vittisque angustis fuscis ; posticæ luteæ, costa latissima margineque postico fuscis.

Sphinx Lycetus, *Cram. Pap. Exot.* i. 96. *Fabr. Ent. Syst.* iii. 1, 371, 45.

Xylophanes Lycetus, *Hübner. Verz. Schmett.* 136, 1457.

Sphinx Oldenlandiæ, *var.?*

Hindostan. Ceylon.

27. CHÆROCAMPA SILHETENSIS.

Cervina ; caput et thorax obscuriora lateribus pallide testaceis ; thorax vitta posteriore pallide testacea strigisque duabus lateralibus auratis ; abdomen linea dorsali argentea vittisque duabus lateralibus auratis ; alæ anticæ gutta discali nigricante vittaque posteriore obscura fusca testaceo marginata, lineis apud marginem exteriorem pallide fuscis ; posticæ pallide fuscae, vitta posteriore pallide cervina.

Deilephila Silhetensis, *Boisd. MSS.*

Fawn-colour. Head and thorax darker, pale testaceous along each side. Thorax with a posterior pale testaceous stripe, and with two lateral gilded streaks. Abdomen with a silvery dorsal line, and with two less distinct gilded lateral stripes. Fore wings very slightly freckled with brown, with a blackish discal dot, and with a posterior dark brown stripe, which has a whitish testaceous hind border ; some indistinct pale brown lines along the exterior border. Hind wings pale brown, with a pale fawn-coloured posterior stripe. Length of the body 13—15 lines ; of the wings 34—30 lines.

Var. β. Fore wings with two dark brown stripes, accompanied by two whitish lines ; interior border whitish.

Var. Fusca, subglaucescens, subtus albida luteo varia ; caput et thorax albido bivittata ; thorax et abdomen luteo bivittata ; abdomen lineis quatuor intermediis pallide fuscis ; alæ anticæ puncto discali nigricante lineisque nonnullis exterioribus subparallelis pallidioribus aut obscurioribus ; posticæ quoque lineatæ, apud discum nigricantes.

Brown, slightly glaucous, whitish and partly luteous beneath. Head and thorax with two whitish stripes. Thorax and abdomen

with two luteous stripes, which are most distinct on the latter. Abdomen with four intermediate pale brown lines. Wings beneath luteous, with ferruginous dotted lines, and with a lilac tinge along the exterior border. Fore wings with a blackish discal point, and with several exterior paler or darker nearly parallel lines. Hind wings with some paler posterior lines; disks blackish.

- a. Ceylon. Presented by R. Templeton, Esq.
- b. North India. From Mr. Stevens' collection.
- c, d. North India. From Mr. James' collection.
- e, f. Silhet. From the Rev. J. Stainforth's collection.
- g, h. North India. Presented by E. Doubleday, Esq.
- i. Nepaul. Presented by Gen. Hardwicke.
- j. North China. From Mr. Fortune's collection.

28. CHÆROCAMPA LINEOSA.

*Cervina, subtus testacea albido varia; caput vittis duabus laterali-
bus testaceis; caput antice albidum; thorax antice subpurpu-
rascens, vitta media testacea; abdomen vittis sex testaceis; alæ
anticæ viridescence-cervinæ, lineis plurimis subparallelis vix
obliquis testaceis guttaque discali fusca; posticæ nigræ, vitta
marginisbusque testaceis.*

Fawn-colour, testaceous and partly whitish beneath. Head and thorax with a testaceous stripe along each side. Head whitish in front. Thorax with a lilac tinge in front, and with a testaceous middle stripe. Abdomen with six testaceous stripes. Fore wings greenish fawn-colour, with numerous nearly parallel hardly oblique testaceous lines, and with a brown discal dot. Hind wings black, testaceous along the borders, and with a testaceous stripe near the exterior border. Wings beneath mostly luteous and speckled. Length of the body 18—20 lines; of the wings 36—44 lines.

This species much resembles the Brazilian *C. Crotonis*.

- a, b. Silhet. From the Rev. J. Stainforth's collection.
- c. ———?

29. CHÆROCAMPA BRENNUS.

*Rubro-fusca; thorax lateribus maculaque discali antica albis,
disco postico cinerascens; abdomen rubrum, lateribus palli-
dioribus; alæ anticæ nigro-fuscæ, lineis fasciis plagisque
viridescens et purpurascens; posticæ rubræ, fusco
marginatæ, ciliis flavis.*

Sphinx Brennus, *Cram. Pap. Exot.* iv. 233, pl. 398, f. B.

Amphion Brennus, *Hübner. Verz. Schmett.* 135, 1445.

Amboina.

30. CHÆROCAMPA CECROPS.

Fusca; caput et thorax fulvo marginata; thorax plaga discali rubra; abdomen lateribus apiceque purpurascens; alæ anticæ viridi-cinereæ, venis margineque rufescentibus, basi plagaque costali fuscis, linea exteriori obliqua nigricante; posticæ rubræ, guttis exterioribus lineaque submarginali nigris.

Sphinx Cecrops, *Cram. Pap. Exot.* iii. 57, pl. 226, f. B.

Thaumas Cecrops, *Hübner. Verz. Schmett.* 138, 1478.

C. Capensis, var.?

Cape.

Group 3.

Structure of *C. Capensis*.

31. CHÆROCAMPA PALLICOSTA.

Ferruginea, subtus rufo-albida; caput canescens, lateribus albidis; thorax lateribus vittaque dorsali albis; abdomen rufescens; alæ anticæ extus glaucescentes, linea undulata obliqua fusca, gutta discali, costa margineque interiore albis; posticæ rufæ, albo ciliatæ.

Deilephila pallicosta, Boisd. MSS.

Ferruginous, reddish white beneath. Head hoary; sides whitish. Thorax white along each side, and with a white dorsal stripe. Abdomen reddish. Fore wings white along the costa and along the interior border, with a glaucous exterior tinge, with an undulating oblique brown line, and with a discal white dot. Hind wings red, with white ciliæ. Length of the body 17—18 lines; of the wings 32—34 lines.

a, b. Silhet. From the Rev. J. Stainforth's collection.

c. Hong Kong. From Mr. Harrington's collection.

d. Silhet. From Mr. Stainforth's collection.

32. CHÆROCAMPA SUFFUSA.

Fusca, subtus testacea; capitis thoracisque latera albido-subpurpurascentia; caput subtus album; thorax vitta albido-purpurascente; abdomen cervinum, cinereo trivittatum; alæ anticæ vittis nonnullis obliquis subpurpurascentibus, gutta discali maculaque basali nigris; posticæ roseæ, basi nigræ, vitta submarginali fusca, maegine interiore ciliisque albidis.

Brown, testaceous beneath. Head and thorax whitish lilac along each side, the former white beneath. Thorax with a whitish lilac stripe. Abdomen fawn-colour. with three cinereous stripes, the middle one broader and more distinct than the others. Fore wings with some oblique lilac stripes, with a black discal dot, and with a black basal spot. Hind wings rose-colour, whitish along the interior border, black at the base, and with a brown submarginal stripe. Ciliæ whitish. Length of the body 19—20 lines; of the wings 38—40 lines.

a, b. Hong Kong. Presented by J. C. Bowring, Esq.

Group — ?

33. CHÆROCAMPA VELOX.

Virescens; orbita oculorum alba; thoracis latera albo lineata; alæ anticæ a basi ultra medium ad costam fuscae, puncto medio distincto atro, margine postico fusco-punctato; posticæ fuscae.

Sphinx velox, Fabr. Ent. Syst. iii. 1, 378, 68.

Hindostan.

Australia.

Group 1.

Like *C. Capensis* in structure.

34. CHÆROCAMPA EROTUS.

Ferrugineo-fusca, subtus rufescens; caput subtus et apud latera postica album; abdomen nonnunquam ferrugineum; tibiæ tarsique albida; alæ anticæ fuscae aut ferruginosæ, subglaucescentes, fasciis duabus diffusis lineisque obliquis obscurioribus; posticæ luteæ, margine fusco maris angusto fœminæ latiore.

Sphinx Erotus, *Cram. Pap. Exot.* ii. 12, pl. 104, f. B. *Fabr. Ent. Syst.* iii. 1, 365, 28.

a, b. Australia. From Dr. Stevenson's collection.

c, d. Australia. From M. Becker's collection.

e. New South Wales. From Mr. Wood's collection.

f—h. Navigator's Island. Presented by the late Duke of Northumberland.

i. Australia. From the Voyage of H.M.S. *Rattlesnake*.

j. Australia. From Mr. Stevens' collection.

35. CHÆROCAMPA SCROFA.

Cervina; *capitis thoracisque latera alba*; *pectus rufescens*; *alæ anticæ nigro conspersæ, necnon plaga discali alba*; *posticæ roseæ, marginibus angustis fuscis*.

Deilephila Scrofa, *Boisd. MSS.*

Fawn-colour. Head and thorax white along each side, the former white beneath. Pectus with a reddish tinge. Fore wings with black speckles, which are most prevalent along the borders, and form a discal patch. Hind wings rosy, with narrow brown borders. Length of the body 13 lines; of the wings 26 lines.

Var. β . *Murina*, *subtus vix rufescens*; *capitis thoracisque latera alba*; *caput subtus album*; *palpi apice albi*; *pedes albo varii*; *alæ posticæ fusco marginatæ, ciliis albis*.

Mouse-colour, with a slight reddish tinge beneath. Head and thorax white along each side, the former white beneath. Palpi with white tips. Legs partly white above. Hind wings reddish, with brown borders; ciliæ whitish. Length of the body 12 lines; of the wings 20 lines.

a. Australia. Presented by Major-Gen. Hardwicke.

b. Australia. From Mr. Ker's collection.

Group 2.

Like *C. Gordius* in structure.

36. CHÆROCAMPA FIRMATA.

Fusca, subtus testacea; capitis thoracisque latera argenteo-cana; palpi apice albidi; thorax vitta lata media argenteo-cana strigisque duabus lateralibus auratis; abdomen vittis quatuor lateralibus luteis subauratis lineaque dorsali duplicata subargentea; alæ anticæ vittis duabus nigro-fuscis argenteo marginatis, vittis duabus posterioribus fuscis, gutta discali nigra, costa ferruginea, vittula diffusa subcostali argenteo-cana; posticæ vitta fulva.

Brown, pale testaceous beneath. Head and thorax silvery, hoary along each side. Palpi with whitish tips. Thorax with a broad silvery hoary middle stripe, and with two lateral gilded streaks. Abdomen with four lateral pale luteous slightly gilded stripes, and with a double dorsal silvery white line, which is single towards the tip. Fore wings somewhat freckled with brown about the borders, ferruginous along the costa, with a black discal dot, with a silvery hoary tinge in front of a dark brown stripe, which is intersected by two paler lines; a posterior silvery white stripe, to which succeeds another dark brown stripe, which has a silvery white hind border; two brown stripes between the latter and the exterior margin. Hind wings with a slight tawny stripe near the exterior margin, which has whitish ciliæ. Length of the body 14 lines; of the wings 28 lines.

This species has much resemblance to *C. sobria*, but is quite distinct.

a. Australia. From Mr. Stevens' collection.

Genus 15. ELIBIA.

Alæ latiusculæ; anticæ acuminatæ, apud costam vix convexæ, margine exteriori subrecto mediocriter obliquo; posticæ apice rotundatæ, margine exteriori sat denticulato.

Wings somewhat broad. Fore wings hardly convex in front, acuminate at the tips, almost straight and moderately oblique along the exterior border. Hind wings rounded at the tips, distinctly denticulated along the exterior border.

1. ELIBIA DOLICHUS.

Obscure fusca, subtus pallidior, vitta dorsali pallide flava; alæ anticæ macula discali lineisque plurimis obliquis subparallelis testaceis; posticæ obscure fuscae, antice glaucæ, ciliis inter venas testaceis.

Chærocampa Dolichus, *Westw. Cab. Orient. Ent.* 61, pl. 30, f. 1.

Dark brown, pale beneath, with a pale yellow dorsal stripe extending from the head to the tip of the abdomen. Fore wings with a black discal spot, and covered with oblique nearly parallel testaceous lines. Hind wings dark brown, glaucous in front; ciliæ whitish between the veins. Length of the body 22—24 lines; of the wings 46—50 lines.

a. Silhet. From Mr. Sowerby's collection.

b, c. Silhet. Presented by E. Doubleday, Esq.

Genus 16. PERGESA.

Corpus sat robustum. Proboscis longa. Antennæ graciles, filiformes, thorace paullo longiores. Abdomen oblanceolatum, thorace plus duplo longius. Pedes longi, graciles; tibiæ posticæ calcaribus quatuor longis. Alæ longiusculæ, mediocriter latæ, margine exteriori subdenticulato; anticæ acuminatæ, apud costam vix convexæ, margine exteriori sat obliquo, vix undulato, apicem versus emarginato; posticæ apice rotundatæ.

Deilephila, p., *Ochs.*; *Boisd.*; *Steph.*

Chærocampa, p., *Westw.*; *Steph.*

Theretra et Oreus, p., *Hübner. Verz. Schmett.* 135, 136.

Body moderately stout. Proboscis long. Palpi as usual. Antennæ slender, filiform, rather longer than the thorax. Abdomen oblanceolate, more than twice the length of the thorax. Legs long, slender; hind tibiæ with four long spurs. Wings rather long, moderately broad, very slightly denticulated along the exterior border. Fore wings hardly convex in front, acuminate; exterior border rather oblique, very slightly undulating, its fore part very slightly concave; second inferior vein not further from the third than from the first; third full thrice further from the fourth than from the second. Hind wings rounded at the tips.

Europe.

The European species has much resemblance to *C. Elpenor* in the distribution of the colours.

1. PERGESA PORCELLUS.

Testaceo-viridescens; caput, thoracis abdominisque vittæ duæ, illius margo anticus hujusque apex rosea; alæ anticæ lineis obliquis obscurioribus, costa margineque exteriori roseis, hoc subundulato; posticæ basi et apud costam nigricantes, margine exteriori roseo, ciliis albis.

———, *Albin, Nat. Hist. Engl. Ins.* pl. 9. *Merian, Ins. Eur.* iii. pl. 22. *Röes. Ins. Bel.* i. *Phal.* i. 33, pl. 5. *Geoffr. Ins. Par.* ii. 88, 12. *Deg. Ins.* ii. 1, 170, 4. *Engr. Pap. d'Eur.* iii. 102, pl. 113, f. 161 a—i.

Sphinx bombylifomis, Linn. Syst. Nat. ed. 10, 493.

Sphinx Porcellus, Linn. Syst. Nat. i. 2, 801, 18; *Faun. Suec.* 288, 1090. *Fabr. Sp. Ins.* ii. 149, 44; *Mant. Ins.* ii. 97, 48; *Ent. Syst.* iii. 1, 375, 52. *Esp. Schmett.* ii. 97, pl. 10, f. 1, 3. *Gmel. ed. Syst. Nat.* i. 5, 2382, 18. *Hübner. Sphing.* 95, 2, pl. 10, f. 60; *Larv. Lep.* ii. *Sph.* iii. *Leg. B.* 6, f. 1, a, b. *Wien. Verz.* 43, 4. *Illig. N. Ausg. dess.* i. 18, 4. *Müll. Zool. Dan.* i. 16, 1339. *Bork. Eur. Schmett.* ii. 64, 135, 178, 1; *Rhein. Mag.* i. 314, 140. *Hübner. Berl. Mag.* ii. 2, 180, 8. *Vieweg, Tab. Verz.* i. 8, 10. *Rossi, Faun. Etr.* ii. 16, 361. *Fuessl. Schw. Ins.* 32, 619. *Schr. Faun. Boic.* ii. 1, 228, 1392. *Lang. Verz.* ii. 70, 569, 570. *Brahm, Ins. Kal.* 313, 199. *Schwarz, Raup.* 355, 494, 633, 748. *Ochs. Schmett. von Eur.* ii. 211, 4. *God. Hist. Nat. Léop. Fr.* iii. 50, pl. 19, f. 1.

Deilephila Porcellus, Steph. Ill. Brit. Ent. Haust. i. 131, 8. *Boisd. Ind. Méth.* 46, 374.

Chærocampa Porcellus, Westw. & H. Brit. Moths, i. 23, pl. 23, f. 9, 10. *Steph. Cat. Brit. Lep.* 29, 2.

Theretra Porcellus, Hübner. Verz. Schmett. 135, 1448.

a—h. England. From Mr. Stephens' collection.

i, j. England. From Mr. Harvey's collection.

k, l. England.

m, n. Germany. From M. Becker's collection.

Mexico.

The following species, like the other Exotic *Pergesæ*, is distinguished from the European group by its longer antennæ.

2. PERGESA THORATES.

Viridis, subtus testacea; capitis thoracisque latera albida; thoracis abdominisque latera subaurata; abdomen rufo-cervinum, lateribus viridibus; alæ anticæ fasciis obliquis interruptis maculisque costalibus albidis, lineis obliquis fasciaque marginali fuscis; posticæ luteæ, fascia lata marginali fusca, basi nigræ.

Var. β . Mas. *Cervina; alæ anticæ cinereo fuscoque variæ, gutta discali argentea; posticæ luteæ, apud marginem exteriorem interrupte ferruginosæ.*

Var. γ . Fœm. *Alæ anticæ rufescentes, cinereo variæ fuscae fasciatæ.*

Sphinx Thorates, Hübn. Samml. Exot. Schmett. f. 525, 526.

a, b. Mexico? Presented by E. Doubleday, Esq.

c, d. Mexico. From Mr. Hartweg's collection.

e. Cuba? Presented by M. Sommer.

f—h. St. Domingo. From Mr. Tweedie's collection.

i. ———?

3. PERGESA ANUBUS.

Pallide cervina; caput et thorax fusco bivittata; abdomen lineis dorsalibus fuscis maculisque duabus basalibus lateribus magnis elongatis nigris; alæ nigro conspersæ, anticæ lineis nonnullis eervinis subobliquis parallelis, gutta discali maculaque posteriore basali nigris guttis submarginalibus fuscis; posticæ nigræ, vitta discali subinterrupta margineque exteriori pallide cervinis.

Deilephila Anubus, Boisd. MSS.

Pale fawn-colour. Head and thorax with two brown stripes. Abdomen with brown dorsal lines, and with a large elongated black spot on each side at the base. Wings sprinkled with black, which is most conspicuous beneath. Fore wings with several fawn-coloured slightly oblique parallel lines, with a black discal dot and a black posterior basal spot, and a row of minute submarginal brown dots. Hind wings black, with a slightly interrupted discal

	bmd	bmd
	pwq	pwq
	-uu-	-uu-
	-nn-	-nn-
d	bmd	bmd
q	pwq	pwq
g	-uu-	-uu-
n	-nn-	-nn-

stripe, and the exterior border pale fawn-colour. Length of the body 21 lines; of the wings 39 lines.

Var. Ferruginea; caput et thorax vittis duabus fuscis lateralibus; abdomen substrigatum, lateribus basi albidis nigro maculatis; alæ anticæ apud costam cervinæ, vitta discali nigricante signisque variis pallidis et nigricantibus; posticæ nigræ, vitta maculari discali albida.

Ferruginous. Head and thorax with two brown lateral stripes, which are darkest and most distinct in the thorax. Abdomen slightly streaked, whitish and with an adjoining black spot on each side at the base. Fore wings mostly fawn-colour in front, with a blackish discal stripe which is dilated at each end, and with various pale and blackish marks. Hind wings black, with a macular whitish discal stripe. Length of the body 17—20 lines; of the wings 36—40 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

b. Brazil. From M. Becker's collection.

Africa.

4. PERGESA IRREGULARIS.

Fusco-cervina, subtus albido-testacea; capitis thoracisque latera albido-testacea; abdomen cervinum, e guttis fuscis bivittatum; alæ anticæ cervinæ gutta discali nigra, linea posteriore fusca guttisque adhuc posterioribus nigris; posticæ fusæ, subtus luteæ.

Brownish fawn-colour, whitish testaceous beneath. Head and thorax whitish testaceous along each side. Abdomen fawn-colour, with two rows of brown dots. Fore wings fawn-colour, with blackish speckles, with a discal black dot, with a posterior brown line, behind which there is a row of blackish dots; under side cinereous, luteous in front, and with an oblique luteous band. Hind wings brown, mostly luteous beneath. Length of the body 16 lines; of the wings 32 lines.

a. West Africa. Presented by E. Doubleday, Esq.

Asia.

5. PERGESA CASTOR.

Cervina, subtus alba luteo varia; capitis thoracisque latera albida; abdomen vittis duabus lateralibus luteis lineisque duabus dorsalibus e guttis nigricantibus; alæ anticæ fascia obliqua diffusa obscuriore nigro guttata aut lineis tribus ferrugineis, gutta discali maculisque tribus costalibus nigris, macula apicali fusca, fascia una aut lineis nonnullis angulosis pallide purpurascentibus apud marginem exteriorem; posticæ fuscæ fascia lutea.

Deilephila Castor, *Boisd. MSS.*

Bright fawn-colour, white and luteous beneath. Head and thorax whitish on each side. Abdomen with a luteous stripe along each side, and with two dorsal rows of blackish dots. Fore wings with a diffuse oblique slightly darker band, which contains several black dots, and adjoins the larger black discal dot; three small black spots on the costa in front of the above band, and a brown apical spot; a lilac band along the exterior border. Hind wings brown, with an irregular pale luteous band. Length of the body 14—16 lines; of the wings 26—30 lines.

Var. β. Fore wings with three ferruginous lines instead of the darker band and the black dots; a zigzag lilac line instead of the lilac band. Hind wings with the luteous band narrower and interrupted.

a. Java. From Mr. Henry's collection.

b, c. Silhet. Presented by E. Doubleday, Esq.

d. Silhet. From Mr. Stainforth's collection.

6. PERGESA ACTEUS.

Cervina, subtus lutescens rufo varia; vertex viridis; thorax et abdomen viridi bivittata; abdomen lineis fuscis; alæ anticæ vitta lata subobliqua viridi, gutta discali margineque exteriori nigro-fuscis; posticæ nigro-fuscæ vitta postica sæpissimæ abbreviata lutea.

Sphinx Acteus, *Cram. Pap. Exot.* iii. 93, pl. 248, f. A.

Oreus Acteus, *Hübner. Verz. Schmett.* 136, 1464.

a. Borneo. From Mr. Low's collection.

b. North India. From Mr. Stevens' collection.

c. Ceylon. Presented by R. Templeton, Esq.

d. Silhet. From Mr. Stainforth's collection.

e—g. North India. From Mr. James' collection.

h—k. Moulmein. From Archdeacon Clerk's collection.

l. Java. From the East India Company's collection.

Genus 17. PANACRA.

Corpus subfusiforme, mediocriter robustum. Caput plus minusve productum et conicum. Proboscis longiuscula. Antennæ simplices, subfiliformes. Abdomen oblanceolatum, thorace non duplo longius. Pedes sat graciles; tibiæ posticæ calcaribus quatuor longis. Alæ plus minusve longæ et angustæ; anticæ subacuminatæ, apud costam rectæ, margine exteriori integro, apicem versus plus minusve excavato, posticæ vix acuminatæ. *Mas.*—Antennæ vix setosæ, thorace paullo longiores. *Fæm.*—Antennæ thorace non longiores.

Body subfusiform, moderately stout. Head more or less prominent or conical. Proboscis rather long. Palpi as usual. Antennæ simple, nearly filiform. Abdomen oblanceolate, rather less than twice the length of the thorax. Legs rather slender; hind tibiæ with four long spurs. Wings more or less long and narrow. Fore wings straight along the costa, slightly acuminate; exterior border entire, more or less oblique, more or less concave towards the tip of the wing; second inferior vein not further from the third than from the first; fourth very remote. Hind wings hardly acuminate; exterior border entire. *Male.*—Antennæ very minutely setose, a little longer than the thorax. *Female.*—Antennæ not longer than the thorax.

Group 1.

Fore wings slightly or hardly excavated on the exterior border.

1. PANACRA AUTOMEDON.

Cervina, subcinerascens; thorax fusco bivittatus; abdomen ferrugineo subaurato quadrivittatus; alæ anticæ maculis duabus costalibus subapicalibus, gutta discali maculaque apud angulum interiorem obscure fuscis, vitta lata subobliqua cano interlineata fusca, striga angulata subapicali albida lituris apud angulum exteriorem subpurpureis; posticæ fuscae, vitta cervina.

Deilephila Automedon, Boisd. MSS.

Fawn-colour, generally with a slight cinereous tinge, paler beneath. Thorax with two brown stripes. Abdomen with four lateral pale ferruginous stripes, which are slightly gilded. Fore wings slightly freckled with brown, with two small dark brown spots near the tip of the costa, with a dark brown discal dot, and with a dark brown spot near the interior angle; a broad brown very slightly oblique stripe, which is interrupted by hoary lines; an angular whitish streak near the tip, and some lilac marks along the exterior border, which forms a very obtuse angle in front of the middle, and is very slightly concave from thence to the tip; fringe brown in front of the veins. Hind wings brown, with a pale fawn-coloured stripe near the exterior border. Length of the body 11—12 lines; of the wings 22—24 lines.

a, b. Silhet. From the Rev. J. Stainforth's collection.

c, d. Silhet. Presented by E. Doubleday, Esq.

e. Silhet. From Mr. Sowerby's collection.

2. PANACRA MYDON.

Cinerea, subtus lutea; caput et thorax ferrugineo-fusco bivittata; abdomen ferrugineum, vittis duabus argenteo-luteis, plagaque basali subquadrata albida aut testacea, necnon maculis diffusis lateralibus posterioribus nigris; alæ ferrugineo-fusæ, anticæ marginibus cervinis, cinereo ex parte nebulosæ, maculis duabus costalibus, una apud angulum interiorem vittaque obliqua obscure fuscis, gutta discali nigra; posticæ margine interiore fasciæque brevi diffusa flavescentibus.

Deilephila Mydon, Boisd. MSS.

Cinereous, mostly luteous beneath. Head and thorax with two ferruginous-brown stripes. Abdomen ferruginous, with a luteous silver-streaked stripe on each side, and with a large subquadrate basal whitish patch, behind which there are two rows of diffuse black spots. Wings ferruginous-brown. Fore wings mostly fawn-colour, and freckled with brown along the borders, partly clouded with cinereous, with two dark brown spots on the costa, with one by the interior angle, with a dark brown oblique stripe, and with a black discal dot; exterior border very oblique, hardly concave towards the tip in the male, distinctly concave in the female. Hind wings yellowish along the interior border, and with a diffuse yellowish band extending along half the length from thence to the

tip. Length of the body 13—14 lines; of the wings 26—28 lines.

Var. β. Abdomen testaceous instead of whitish at the base. Fore wings with some testaceous marks and lines in the disk; first dark brown costal spot wanting.

a. Silhet. From Mr. Argent's collection.

b. Silhet. From Capt. Parry's collection.

3. PANACRA LIGNARIA.

Fusca, subtus testacea; capitis thoracisque latera subroseo-albida; thorax subroseo-albido trivittatus; abdomen ex parte cinereum, linea interrupta dorsali nigra maculisque lateralibus obliquis albidis; alæ anticæ acuminatæ, albido variæ, apud costam cervinæ, gutta discali nigra, dimidio fere posteriore albido lineis fuscescentibus, macula apud angulum interiorem obscure fusca strigaeque apicali fusca; posticæ apud marginem interiorem cervinæ.

Brown, pale testaceous beneath. Head somewhat ferruginous in front. Head and thorax whitish, with a slight pinkish tinge along each side. Thorax with three stripes of the same hue, the lateral pair abbreviated. Abdomen partly cinereous, with an interrupted black dorsal line, and with oblique whitish spots along each side. Fore wings acuminate, fawn-colour along the costa, somewhat freckled with brown along the borders, partly whitish in the disks; hind part from one-third of the length of the interior border to four-fifths of the length of the costa whitish, slightly interlined with pale brown; a black discal dot, a dark brown spot by the interior angle, and a brown apical streak; exterior border very oblique, hardly concave towards the tip of the wing. Hind wings brown, fawn-colour along the interior border. Length of the body 13—16 lines; of the wings 24—30 lines.

a. Ceylon. Presented by R. Templeton, Esq.

b. Cape York, Australia. Presented by J. Macgillivray, Esq.

The Ceylon specimen is much smaller than that from Australia.

4. PANACRA VARIOLOSA.

Cervina, subtus testacea; abdomen nigro conspersum, vittis tribus testaceis, vitta medio albido marginata; alæ anticæ nigro conspersæ, gutta discali liturisque basalibus nigris, necnon vitta e lineis quatuor nigris apud costam arcuatis; posticæ fusæ, margine interiore vittaque intermedia testaceis.

Fawn-colour, testaceous beneath. Abdomen sprinkled with black, and adorned with three testaceous stripes, the middle one more distinct than the others, and with a whitish border. Fore wings sprinkled with black, with a black discal dot, with some black marks at the base, and with a stripe composed of four black lines, which extend from one-third of the length of the interior border to the costa near the tip of the wing, where they are curved. Hind wings brown, testaceous along the interior border, and with an incomplete testaceous stripe near the exterior border. Length of the body 14 lines; of the wings 26 lines.

Silhet. In Mr. Saunders' collection.

5. PANACRA SCAPULARIS.

Ferrugineo-fusca aut rufo-cervina, subtus lutea; capitis thoracisque latera testacea; thorax strigis duabus lateralibus argenteis vittaque brevi media testacea; abdomen ferrugineum, basi testaceum, vittis duabus rufescentibus argenteo strigatis; alæ anticæ testacæ, cervino variæ, vitta obliqua, lineis undulatis posterioribus, striga apicali maculaque apud angulum interiorum fuscis aut ferrugineis, gutta discali nigra; posticæ margine interiore vittaque interrupta aut abbreviata testaceis.

Sphinx scapularis, Horsfield, MSS.

Brown, slightly ferruginous, mostly luteous beneath. Head and thorax pale testaceous along each side. Thorax with a silvery streak on each side, and with a short testaceous middle stripe. Abdomen ferruginous, somewhat testaceous in the disk towards the base, with two more reddish silver-streaked stripes. Fore wings testaceous, here and there fawn-colour, slightly freckled with black; a dark brown oblique stripe, with some undulating brown lines along its hind border, an apical streak and a spot by the interior angle of the same hue, and a black discal dot; exterior border very oblique, slightly concave towards the tip of the wing. Hind wings testaceous along the interior border, and with an interrupted or abbreviated testaceous stripe. Length of the body 11—14 lines; of the wings 20—26 lines.

Var. β. Fore wings more generally testaceous.

Var. γ. Fore wings dark fawn-colour instead of testaceous.

Var. δ. (Java). Reddish fawn-colour. Thorax with two ferruginous stripes. Fore wings with the markings ferruginous instead of brown.

a—c. Silhet. From Mr. Sowerby's collection.

d. Silhet. Presented by E. Doubleday, Esq.

e. Java. From Mr. Milne's collection.

f. Java. From the East India Company's collection.

Group 2.

Fore wings deeply excavated on the exterior border near the tip.

6. PANACRA BUSIRIS.

Cervina, subtus testacea; caput magnum, conicum, subtus albidum, disco viridi, lateribus subroseo trilineatis; thorax lineis duabus anticis et lateralibus undulosis subroseis, lateribus postice fuscescentibus; abdomen basi viride-fusco bivittatum; alæ basi albido fasciculatæ; anticæ subacuminatæ, basi oblique fuscae lineis nonnullis pallidioribus, fascia apud marginem exteriorem latissima cervina nigro lineata fusco ex parte nebulosa, margine exteriori antice excavato postice perobliquo; posticæ obscure fuscae, margine exteriori testaceo, subtus virides aut cervinae.

Deilephila Busiris, Boisd. MSS.

Fawn-colour, testaceous beneath. Disk of the head and of the thorax green. Head large, prominent, conical, whitish beneath, with three pinkish lines on each side above. Eyes large. Thorax with two pinkish lines in front, and two along each side of it, the lateral lines much curved; hind part brownish on each side. Abdomen green and with a short brown stripe on each side towards the base. Wings with a whitish tuft on each at the base. Fore wings slightly acuminate, brown, with several paler lines at the base, the brown part much wider in front than behind; a very broad fawn-coloured band along the exterior border, freckled and interlined with black and partly shaded with brown; exterior border deeply excavated and hardly oblique behind the tip, extremely oblique from thence to the interior angle. Hind wings dark brown above, mostly green or fawn-colour beneath, testaceous along the exterior

border. Length of the body 15—17 lines; of the wings 30—32 lines

a. Silhet. From the Rev. J. Stainforth's collection.

b, c. Silhet. From Mr. Stainforth's collection.

d. Silhet. Presented by E. Doubleday, Esq.

Group 3.

Alæ longiusculæ; anticæ apud costam vix convexæ, apice acuminatæ, margine exteriori subundulato valde obliquo; posticæ margine exteriori apud angulum interiorem excavato.

Wings rather long. Fore wings hardly convex in front, acuminate at the tips, very oblique and slightly undulating along the exterior border. Hind wings excavated on the exterior border towards the interior angle.

7. PANACRA ANDOSA.

Cana; abdomen ex parte ferrugineum; alæ anticæ fasciis obliquis undulosis margineque exteriori fuscescentibus; posticæ ferrugineæ, apud angulum interiorem canæ fuscoque maculatæ.

Deilephila Andosa, Boisd. MSS.

Hoary. Abdomen partly ferruginous. Fore wings with indistinct oblique undulating brownish bands; exterior border brownish; under side mostly ferruginous. Hind wings ferruginous, hoary, with brown spots towards the interior angle; under side hoary, with brown stripes. Length of the body 11 lines; of the wings 24 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

Group 4.

Alæ anticæ angustæ, apices versus acutas excavatæ aut truncatæ, margine exteriori ante medium angulato, postice recto perobliquo, margine interiori undulato; posticæ acutæ, margine exteriori vix denticulato.

Fore wings narrow, rather deeply excavated or truncated behind the tips, which are acute; exterior border forming a slightly obtuse angle in front of the middle, straight and very oblique from

thence to the interior angle; interior border undulating. Hind wings acute at the tips, hardly denticulate along the exterior border.

8. PANACRA TRUNCATA.

Pallide cinerea; alæ anticæ fusco conspersæ, guttis paucis marginalibus vittaque subobliqua fuscis, striga apicali albida; posticæ fuscae, vitta cinerea.

Pale cinereous. Fore wings with brown speckles, with a few brown marginal dots, and with a brown stripe which extends from near the base of the interior border to the tip, and has there a whitish streak on its outer side. Hind wings brown, with a cinereous stripe. Length of the body 12 lines; of the wings 20 lines.

a. Silhet. From Mr. Stainforth's collection.

Group 5.

Alæ anticæ angustæ, apice acutæ, margine exteriori antice excavato postice denticulato; posticæ acutæ, margine exteriori excavato.

Fore wings narrow, slightly convex in front towards the tips, which are acute; exterior border excavated along half its length, denticulated from thence to the interior angle. Hind wings acute at the tips, with excavations along the exterior border.

9. PANACRA ASSAMENSIS.

Cinerea; caput et thorax vittis duabus obliquis fuscis; alæ anticæ gutta basali nigricante, maculis duabus discalibus subcostalibus fasciisque duabus exterioribus obliquis angulosis fuscis; posticæ ferrugineo-fuscae.

Deilephila Assamensis, Boisd. MSS.

Cinereous. Head and thorax with two diverging brown stripes, which are united in front. Fore wings with a blackish dot near the base, and with two brown spots in the disk near the costa; also with two exterior oblique zigzag brown bands. Hind wings ferruginous-brown. Length of the body 10 lines; of the wings 20 lines.

a. Silhet. From the Rev. J. Stainforth's collection.

The species in the following group differs somewhat from the typical form of the genus.

Group 6.

Fœm. Corpus sat robustum. Caput brevi-conicum. Proboscis mediocriter longa. Antennæ graciles, subclavatæ. Abdomen oblanceolatum, thorace duplo longius. Pedes sat graciles; tibiæ posticæ calcaribus quatuor breviusculis. Alæ longiusculæ, sat angustæ; anticæ apud costam rectæ, vix acuminatæ, margine exteriori perobliquo, apud medium convexo, antice et postice excavato; posticæ apice rotundatæ, margine exteriori apud angulum interiorem subemarginato.

Female. Body moderately stout. Head short-conical. Proboscis moderately long. Antennæ slender, subclavate. Abdomen oblanceolate, about twice the length of the thorax. Legs rather slender; hind tibiæ with four rather short spurs. Wings rather long and narrow. Fore wings straight along the costa, hardly acuminate; exterior border very oblique, excavated on each side of the middle, which is somewhat convex; inferior veins much as usual. Hind wings rounded at the tips; exterior border slightly emarginate towards the interior angle.

10. PANACRA CONFUSA.

Fœm. *Cinereo-fusca; caput et thorax vitta obscuriore; abdomen subtus e maculis nigris bivittatum; alæ anticæ lineis undulosis obliquis obscurioribus, plaga costali magna guttaque discali obscure fuscis; posticæ ferrugineo-fuscæ, fascia indistincta obscuriore.*

Female. Brown, with a slight cinereous tinge, paler beneath. Head and thorax with a darker middle stripe. Abdomen beneath with two rows of black spots. Fore wings with indistinct undulating oblique darker lines, with a large dark brown patch on the costa, and with a dark brown discal dot, which is near the patch. Hind wings ferruginous-brown, with an indistinct darker band. Length of the body 12 lines; of the wings 24 lines.

a. Port Natal. From M. Gueinzus' collection.

Genus 18. UNZELA.

Corpus fusiforme, sat robustum. Proboscis mediocriter longa. Antennæ sat graciles. Abdomen thorace non duplo longius. Pedes mediocriter validi; tibiæ posticæ calcaribus quatuor brevius-

culis. Alæ mediocriter latæ, non longæ; anticæ apud costam rectæ, apice rotundatæ, incisuris tribus necnon angulo rotundato medio apud marginem anteriorem subobliquum; posticæ apice rotundatæ, margine anteriore subdenticulato.

Body fusiform, rather stout. Proboscis moderately long. Palpi as usual. Antennæ rather slender. Abdomen much less than twice the length of the thorax. Legs moderately stout; hind tibiæ with four rather short spurs. Wings moderately broad, not long. Fore wings straight along the costa, rounded at the tips; exterior border slightly oblique, forming a very obtuse and much rounded angle in the middle, which has a slight excavation in front and two shorter and more distinct indentations behind; inferior veins much as usual. Hind wings rounded at the tips; exterior border slightly denticulated, somewhat excavated towards the interior angle.

1. UNZELA DISCREPANS.

Cervina, apud latera subtusque testacea; alæ anticæ fasciis duabus denticulatis subramosis testaceis, plaga magna apicali albido-testacea liturisque posterioribus nigris; posticæ fusco-cervinæ, apud angulum anteriorem testaceo notatæ, margine anteriore subargenteo.

Fawn-colour, testaceous on each side and beneath. Thorax with a few white hairs on each side and behind. Fore wings with two irregular denticulated and somewhat ramose testaceous bands; the first basal, broad; the second communicating with a large apical whitish testaceous patch, between which and the interior angle there are some black marks. Hind wings brownish fawn-colour, with a silvery tinge along the interior border, and with some testaceous marks by the interior angle. Length of the body 11 lines; of the wings 20 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

2. UNZELA? JAPYX.

Ferrugineo-fusca; abdomen purpurascens, fasciis testaceis; alæ anticæ apices versus testacæ, maculis nigris, guttis albis unaque postica cyanea, gutta discali nigra lineisque duabus interioribus lutescentibus; posticæ margine postico latissime nigricante, lituris apud angulum anteriorem purpureis.

Sphinx Japix, Cram. Pap. Exot. i. 137, pl. 87, f. C.

Enyo Japix, Hübn. Verz. Schmett. 132, 1416.

United States.

Genus 19. DIODOSIDA.

Fœm. Corpus sat gracile. Caput breve. Proboscis mediocriter longa. Antennæ subfiliformes, subsetosæ, thorace paullo longiores. Abdomen oblanceolatum, thorace vix duplo longius. Pedes sat validi, non longi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ latiusculæ, non longæ; anticæ subacuminatæ vix hamatæ, apud costam subrectæ, margine exteriore mediocriter obliquo, apud medium subconvexo; posticæ apice rotundatæ, margine exteriore apud angulum interiorem subconcavo.

Female. Body rather slender. Head short. Proboscis moderately long. Palpi as usual. Antennæ subfiliform, minutely setose, a little longer than the thorax. Abdomen oblanceolate, nearly twice the length of the thorax. Legs rather stout, not long; hind tibiæ with four moderately long spurs. Wings rather broad, not long. Fore wings almost straight along the costa, slightly acuminate and hardly hooked at the tips, moderately oblique along the exterior border, which is slightly convex in the middle; inferior veins much as usual. Hind wings rounded at the tips; exterior border slightly concave towards the interior angle.

1. DIODOSIDA MURINA.

Fœm. *Cinereo-ferruginea; abdomen vitta interrupta nigricante; alæ anticæ cinereæ, nitentes, maculis duabus (una subcostali, altera subapicali) nigricantibus fasciæque ferruginosa; posticæ rufæ, fusco marginatæ, ciliis albidis.*

Female. Cinereous-ferruginous. Antennæ whitish. Abdomen with an indistinct interrupted blackish stripe. Fore wings cinereous, somewhat shining, with two blackish spots, the one subcostal, the other subapical; an indistinct ferruginous band behind the subcostal spot; exterior veins slightly dotted with black. Hind wings reddish, with brown borders; ciliæ whitish. Length of the body 12 lines; of the wings 22 lines.

a. Port Natal. From Mr. Stevens' collection.

Genus 20. DEILEPHILA.

Corpus robustum. Caput prominens, conicum. Proboscis mediocriter longa. Antennæ validæ. Abdomen oblanceolatum, thorace non duplo longius. Pedes longi, graciles; tibiæ posticæ calcaribus quatuor longis. Alæ longæ, angustæ; anticæ acumi-

natae, apud costam rectae, margine interiore integro subrecto perobliquo; posticae apice subrotundatae, margine exteriori apud angulum interiorem subemarginato. *Mas.*—Antennae subclavatae, subserratae, thoracis longitudine. *Fæm.*—Antennae clavatae, simplices, thorace paullo breviores.

Sphinx, p., *Linn.*; *Fabr.*; *Gmel.*; *God.*

Deilephila, p., *Ochs.*; *Curt.*; *Steph.*; *Boisd.*

Phryxus, p., Hyles et Thaumasp., *Hübner. Verz. Schmett.* 137, 138.

Body stout. Head prominent, conical. Proboscis moderately long. Palpi as usual. Antennae rather stout. Abdomen oblanceolate, rather less than twice the length of the thorax. Legs long, slender; hind tibiae with four long spurs. Wings long, narrow. Fore wings acuminate, straight along the costa, entire, almost straight and very oblique along the exterior border; inferior veins much as usual. Hind wings somewhat rounded at the tips; exterior border slightly emarginate towards the interior angle. *Male.*—Antennae subclavate, minutely serrate, as long as the thorax. *Female.*—Antennae clavate, simple, a little shorter than the thorax.

Europe.

Group 1.

Alae anticae albo lineatae.

Fore wings with white lines.

1. DEILEPHILA LIVORNICA.

Olivaceo-viridis, subtus albida; capitis thoracisque latera alba; thorax vittis duabus obliquis vittaque media postica brevi albis; abdominis segmenta basi albo nigroque maculata; alae anticae striga postica basali venisque albis, media discali testacea, margine exteriori cinereo; posticae roseae, vittis duabus nigricantibus, macula apud angulum interiorem ciliisque albis.

———, *Petiv. Gazoph.* pl. 12, f. 9. *Engr. Pap. d'Eur.* iii. 96, pl. 110, 111, f. 158, a—e.

Sphinx Livornica, *Hübner. Sphing.* 96, 5, pl. 12, f. 65; pl. 23, f. 112. *Esp. Schmett.* ii. 87, 196, pl. 8, f. 4; 41, pl. 46, f. 3—7.

Sphinx lineata, *Fabr. Sp. Ins.* ii. 147, 34; *Mant. Ins.* ii. 96, 37; *Ent. Syst.* iii. 1, 368, 39. *Gmel. ed. Syst. Nat.* 15, 2383, 83. *Panz. Faun. Germ.* 21, 24. *Rossi, Faun. Etr.* ii. 14, 359. *Ochs. Schmett. von Eur.* ii. 214, 1. *Meig. Syst. Besch. Eur. Schmett.* ii. 136, 5, pl. 64, f. 5; *Handb.* 95, 9, pl. 10, f. 2.

Sphinx Koechlini, *Fuessl. Archiv.* 1, 6, pl. 33, f. 1—5. *Bork. Eur. Schmett.* ii. 83, 3; 141, 179, 8. *Schr. Faun. Boic.* ii. 1, 225, 1388. *Lang. Verz.* ii. 69, 566. *Schwarz, Raup.* 204, 364.

Phryxus Livornica, *Hübner. Verz. Schmett.* 137, 1468.

Deilephila lineata, *Steph. Ill. Brit. Ent. Haust.* i. 126, 3, pl. 12, f. 1.

Deilephila Livornica, *Steph. Cat. Brit. Lep.* 28, 3.

a. England. From Mr. Stephens' collection.

b. England.

c. South France.

d. ———?

e, f. North India. From Mr. Stevens' collection.

g, h. Landoor, N. W. Himalaya. Presented by Gen. Hearsay.

i, j. Turkey. Presented by W. K. Loftus, Esq.

k. Cape. From M. Dregé's collection.

Group 2.

Alæ anticæ lineis nullis albis.

Fore wings without white lines.

2. DEILEPHILA EUPHORBIAE.

Viridi-fusca, subtus rosea; caput subtus palpique apice necnon capitis thoracisque latera alba; abdominis dimidium basale lateribus albidis nigro quadrimaculatis, segmenta posteriora lineis transversis interruptis albis; alæ anticæ subroseæ, plaga basali, maculis duabus anticis lineaque obliqua postice dilatata viridi-fuscis; posticæ roseæ, basi vittaque nigris, plaga apud angulum interiorem alba.

———, *Réaumur. Ins.* i. pl. 13, f. 4—7. *Frisch. Ins.* ii. pl. 11. *Merian, Ins. Eur.* 123. *Röes. Ins. Bel.* i. *Phal.* i. 17, pl. 3. *Geoffr. Ins. Par.* ii. 87, 11. *Deg. Ins.* i. pl. 8, f. 6—11. *Uddm. dissert.* 57. *Lederm. Epist.* 48, pl. 16. *Schæff. Icon.* pl. 99, f. 3, 4, pl. 11, f. 1—8. *Sepp. Ins.* pl. 4, 5. *Engr. Pap. d'Eur.* iii. 86—90, pl. 107, 108, f. 155. *Frisch, Ins.* ii. 43.

Sphinx Euphorbiæ, *Linn. Syst. Nat.* i. 2, 802, 19; *Faun. Suec.* 287, 1086; *Mus. Lud. Ulr.* 356, 16. *Scop. Ent. Carn.* 186, 471. *Drury, Ins. Exot.* i. 64, pl. 29, f. 3; *Fabr. Sp. Ins.* ii. 146, 32; *Mant. Ins.* ii. 95, 35; *Ent. Syst.* iii. 1, 367, 37. *Esp. Schmett.* ii. 100, pl. 11, f. 1—4. *Gmel. ed. Syst. Nat.* i. 5, 2383, 19. *Hübner. Sphing.* 97, 7, pl. 12, f. 66. *Larv. Lep.*

ii. *Sph.* iii. *Leg.* B, d, f. 2, a, b. *Wien. Verz.* 42, 1. *Illig. N. Ausg. dess.* i. 12, 1; *Mag.* ii. 35. *Poda, Ins.* 81, 5. *Schæff. Icon. Nom. Panz.* 109. *Donov. Nat. Hist. Brit. Ins.* ii. pl. 91, 92. *Panz. Faun. Ins. Germ.* 13, 19. *Müll. Zool. Dan.* 116, 1340; *Faun. Fridr.* 37, 343. *Bork. Eur. Schmett.* ii. 77, 139, 178, 6. *Hüfn. Berl. Mag.* ii. 2, 180, 9. *Naturf.* vii. 105. *Fuessl. Schw. Ins.* 32, 620. *A. Mag.* i. 2, 266. *Schr. Faun. Boic.* ii. 1, 226, 1390. *Vieweg, Tab. Verz.* i. 6, 7. *Rossi, Faun. Etr.* ii. 161, 1051; *ed. Illig.* 256, 1051. *Lang. Verz.* ii. 68, 558—562. *Brahm. Ins. Kal.* 426, 298. *Schwarz, Raup.* 356, 495. *Ochs. Schmett. von Eur.* ii. 223, 4. *God. Hist. Nat. Lép. Fr.* iii. 33, pl. 17, f. 2. *Meig. Syst. Besch. Eur. Schmett.* ii. 138, 7, pl. 65, f. 2; *Handb.* 97, 11.

Hyles Euphorbiæ, Hübn. Verz. Schmett. 137, 1475.

Deilephila Euphorbiæ, Curt. Brit. Ent. i. pl. 3. *Steph. Ill. Brit. Ent. Haust.* i. 124, 1; *Cat. Brit. Lep.* 28, 1. *Boisd. Ind. Méth.* 47, 382.

a—d. England. From Mr. Stephens' collection.

e—i. England.

j—m. Europe. From M. Becker's collection.

n. Europe.

3. DEILEPHILA ESULÆ.

Alæ anticæ cinereo arduisiacæ vitta pallida maculaque disci virescente; posticæ nigræ fascia media rubra margineque exteriori arduisiaceo.

Deilephila Esulæ, Boisd. Icon. Hist. Lép. Sphing. 26, 5, pl. 50, f. 1; *Ind. Méth.* 47, 383. *Dup. Hist. Nat. Lép. Fr. Suppl.* ii. 18, pl. 2, f. 1.

Calabria.

4. DEILEPHILA GALII.

Viridi-fusca, subtus testacea; caput subtus, palpi apice necnon capitis thoracisque latera alba; abdominis latera basi alba nigro quadrimaculata, segmenta posteriora lineis transversis interruptis albis, linea dorsalis e guttis albis; alæ anticæ macula basali nigra antice alba postice cyanea, vitta discali ramosa albida, margine exteriori purpurascens; posticæ subroseæ, plaga rosea, apud angulum interiorem albæ, basi vittaque nigris.

- , *Röes. Ins. Bel.* iii. 33, pl. 6, f. 1, 2, 4. *Schæff. Icon.* pl. 78, f. 1, 2. *Deg. Ins.* ii. 11, 236, pl. 8, f. 6—11. *Berl. Mag.* ii. pl. 2, 4. *Engr. Pap. d'Eur.* iii. 91, pl. 19, f. 156, a—f.
- Sphinx Galii*, *Fabr. Sp. Ins.* ii. 147, 33; *Mant. Ins.* ii. 95, 36; *Ent. Syst.* iii. 1, 368, 38. *Wien. Verz.* 42, 2. *Esp. Schmett.* ii. pl. 21. *Gmel. ed. Syst. Nat.* i. 5, 2383, 82. *Esp. Schmett.* ii. 173, pl. 21. *Suppl.* 3. *Bork. Eur. Schmett.* ii. 81, 140, 179, 7; *Rhein. Mag.* i. 316, 143. *Hübner. Sphing.* 96, 6, pl. 12, f. 64; *Larv. Lep.* ii. *Sphing.* iii. *Leg. B, d,* f. 1, a. *Illig. N. Ausg. dess.* i. 14, 2; *Mag.* ii. 35. *Schæff. Icon. Nom. Panz.* 92. *Panz. Faun. Germ.* 13, 20. *Rossi, Faun. Etr.* ii. 162, 1053; *Ed. Illig.* 260, 1053; *Mant.* 14, 360. *Fuessl. A. Mag.* i. 113; *N. Mag.* ii. 1, 70; iii. 2, 156, 122. *Vieweg, Tab. Verz.* i. 7, 8. *Lang. Verz.* ii. 68, 563, 564. *Brahm, Ins. Kal.* 314, 200. *Schwarz, Raup.* 362, 495. *Ochs. Schmett. von Eur.* ii. 217, 2. *God. Hist. Nat. Léop. Fr.* iii. 37, pl. 17, f. 3. *Meig. Syst. Besch. Eur. Schmett.* ii. 137, 6, pl. 65, f. 1; *Handb.* 96, 10.
- Sphinx Euphorbiæ*, *Linn. Syst. Nat.* i. 2, 802, 19; *Mus. Lud. Ulr.* 356, 16.
- Hyles Galii*, *Hübner. Verz. Schmett.* 137, 1470.
- Deilephila Galii*, *Steph. Ill. Brit. Ent. Haust.* i. 125, 2, pl. 12, f. 2; *Cat. Brit. Lep.* 28, 2. *Westw. & H. Brit. Moths*, i. 18, pl. 4, f. 4, 5. *Boisd. Ind. Méth.* 47, 384.
- a, b. England. From Mr. Stephens' collection.
c—e. England.
f—j. Europe. From M. Becker's collection.

This species also inhabits North America, where it has been described with the following names.

- Sphinx Epilobii*, *Harris, Cat. Ins. Mass. Hitchcock's Report*, 590; (1833). *Second edit.* 591, (1835).
- Deilephila Chamænerii*, *Harris, Cat. North Amer. Sphinges, Amer. Journ. Sci.* xxxvi. 305, 1839; *Lake Superior, &c.*, 387, pl. 7, f. 2.
- Var.?* *Deilephila intermedia*, *Kirby, Fauna. Amer.-Boreal.*
- Larva feeds on *Epilobium angustifolium*.

New Hampshire. Lake Superior.

- k. United States. Presented by E. Doubleday, Esq.
l. Massachusetts. From Prof. Sheppard's collection.
m. North America. Presented by E. Doubleday, Esq.
n. York Factory. Presented by Dr. Rae.
o. Orilla, West Canada. From Mr. Bush's collection.

5. DEILEPHILA TITHYMALI.

Abdomen cingulis duabus nigris ; alæ anticæ olivaceæ fascia venisque postice albis ; posticæ nigræ fascia media margineque exteriori rubris.

Deilephila Tithymali, *Boisd. Icon. Hist. Lép. Sphing.* 30, pl. 51, f. 1 ; *Ind. Méth.* 47, 386.

South Spain. Canary Isles.

6. DEILEPHILA ZYGOPHYLLI.

Alæ anticæ olivaceæ, vitta angusta inæquali sublineari albida ; posticæ nigræ fascia media margineque exteriori rubro incarnatis.

Sphinx Zygophylli, *Ochs. Schmett. von Eur.* iii. 226, 5. *Hübner. Sphing.* pl. 27, f. 125. *Meig. Syst. Besch. Eur. Schmett.* ii. 140, 9.

Deilephila Zygophylli, *Boisd. Icon. Hist. Lép. Sphing.* 32, 8, pl. 51, f. 2. *Dup. Hist. Nat. Lép. Fr. Suppl.* ii. 20, pl. 3, f. 1.

Shores of the Caspian.

7. DEILEPHILA NICEA.

Viridi-fusca, subtus roseo-albida ; capitis thoracisque latera alba ; palpi apice albi ; abdominis dimidium basale lateribus albidis nigro quadrimaculatis, segmenta posteriora maculis transversis albidis ; alæ basi albæ ; anticæ testaceæ plaga basali, maculis duabus anticis lineaque obliqua postice dilatata viridi-fuscis ; posticæ subroseæ, basi vittaque nigris.

Sphinx Nicæa, *De Prun. Lep. Pedem.* 173. *Hübner. Sphing.* 115. *Ochs. Schmett. Eur. God. Hist. Nat. Lép. Fr.* iii. 171, pl. 17, f. 1. *Meig. Syst. Besch. Eur. Schmett.* ii. 139, 8.

Sphinx Cyparissæ, *Hübner. Sphing.* f. 115.

Hyles Nicea, *Hübner. Verz. Schmett.* 137, 1474.

Deilephila Nicæa, *Boisd. Ind. Méth.* 47, 381.

This species is especially distinguished from *D. Lathyri* by its larger size, by the more abrupt flexure of the stripe on the fore wings, and by the hind wings where the black colour extends from the base along the costa till it joins the hinder stripe.

a—c. South Europe. From M. Becker's collection.

8. DEILEPHILA DAHLII.

Viridi-fusca, subtus rosea; caput subtus, palpi apice, capitis thoracisque latera, thoracisque vittæ duæ obliquæ alba; abdomen lineis transversis albis, maculis sex anticis lateralibus nigris albisque; alæ anticæ basi albæ, venis exterioribus albidis, vitta discali antice valde excisa margineque exteriori pallide purpurascens; posticæ roseæ, basi vittaque nigris, plaga apud angulum interiorem alba.

Sphinx Dahlii, Treits. x. Suppl. 132. Geyer, Suppl. Hübn. *Sphinx*. pl. 36, f. 161—164. Meig. Syst. Besch. Eur. Schmett. ii. 141, f. 1, pl. 65, f. 5.

Deilephila Dahlii, Ramb. Ann. Soc. Ent. Fr. 1832, 266. Boisd. Icon. Hist. Lép. *Sphinx*. 28, 6, pl. 50, f. 2, 3; Ind. Méth. 47, 385. Dup. Hist. Nat. Lép. Fr. Suppl. ii. 7, pl. 1, f. 1.

a—c. Europe. From M. Becker's collection.

d. South Europe. Presented by M. A. Pierret.

9. DEILEPHILA HIPPOPHÆES.

Cinereo-fusca, subtus testacea; palpi subtus apiceque albi; capitis thoracisque latera alba; abdomen basi maculis lateralibus quatuor nigris albisque; alæ anticæ cinereæ, gutta discali nigra, macula basali postica cyaneo-nigra, vittisque duabus obliquis postice dilatatis, una cana, altera cinereo-fusca; posticæ roseæ, sub costam cyaneo-nigræ, basi vittaque nigro-fuscis, plaga apud angulum interiorem alba, margine exteriori cano.

Sphinx Hippophæes, Esp. Schmett. ii. 6, pl. 38, f. 1, 2. Hübn. *Sphinx*. 97, 8, pl. 22, f. 109. Ochs. Schmett. von Eur. ii. 221, 3. God. Hist. Nat. Lép. Fr. iii. 173. Meig. Syst. Besch. Eur. Schmett. ii. 140, 10, pl. 65, f. 4.

Deilephila Hippophæes, Boisd. Ind. Méth. 47, 388.

Hyles Hippophæes, Hübn. Verz. Schmett. 137, 1473.

Corsica. Sardinia.

a—e. Europe. From M. Becker's collection.

10. DEILEPHILA VESPERTILIO.

Murina, subtus albida; palpi apice albidii; capitis latera alba; abdomen basi maculis quatuor lateralibus nigris albidisque; alæ anticæ linea obliqua discali liturisque nonnullis obscurioribus; posticæ roseæ, basi nigro-fuscæ, vitta marginali fusca.

———, *Engr. Pap. d' Eur.* iii. 98, pl. 111, f. 159.

Sphinx Vespertilio, *Fabr. Sp. Ins.* ii. *Append.* 504; *Mant. Ins.* ii. 96, 38; *Ent. Syst.* iii. 1, 369, 40. *Fuessl. Arch. Ins.* i. *fig. Esp. Schmett.* ii. 178, pl. 22, f. 4. *Gmel. ed. Syst. Nat.* i. 5, 2384, 84. *Hübner. Sphing.* 97, 9, pl. 11, f. 62; pl. 21, f. 103, 104; *Larv. Lep.* ii. *Sph.* iii. *Leg. B, b, f. 1, a, b.* *De Vill. Ent. Linn.* ii. 97, 17, pl. 4, f. 17. *Bork. Eur. Schmett.* ii. 87, 4; 142, 9; 179, 9. *Rossi, Faun. Etr.* ii. 160, 1049; *Ed. Illig.* 254, 1049. *De Prunner, Lep. Pedem.* 87, 175. *Ochs. Schmett. von Eur.* ii. 228, 6. *God. Hist. Nat. Lép. Fr.* iii. 178, pl. 17, f. 2. *Frey. Neu. Beit. Schmett.* i. 73, 69, pl. 39. *Meig. Syst. Besch. Eur. Schmett.* ii. 142, 12, pl. 66, f. 1; *Handb.* 97, 12.

Thaumas Vespertilio, *Hübner. Verz. Schmett.* 138, 1476.

a—f. Europe. From M. Becker's collection.

11. DEILEPHILA EPILOBII.

Thorax cinereo-olivaceus; alæ anticæ subcinereæ fascia obliqua extus angulosa ad apicem, altera basali, maculaque media obsoleta cinereo-olivaceis; posticæ rubro incarnatæ, basi limboque nigris, angulo anali albido; quatuor subtus roseæ extimo cinereo, anticæ macula media oblonga nigra.

Deilephila Epilobii, *Boisd. Icon. Hist. Lép. Sphing.* 24, 4, pl. 51, f. 3; *Ind. Meth.* 47, 389.

A hybrid between *D. Vespertilio* and *D. Euphorbiæ*?

South France.

12. DEILEPHILA VESPERTILIOIDES.

Thorax cinereus; alæ subtus pallidoroseæ, atomis sparsis margine basique cinereis; anticæ cinereæ, fascia obliqua ad apicem, altera basali, punctoque medio obscurioribus; posticæ rubro incarnatæ, basi limboque nigris.

Sphinx Vespertilioides, *Boisd. Ann. Soc. Linn. Paris*, vi. pl. 6, f. 4.

Deilephila Vespertilioides, *Boisd. Icon. Hist. Lép. Sphing.* 22, pl. 49, f. 3; *Ind. Méth.* 47, 390.

Sphinx Amelia, *Feisth. Bull. Soc. Nat.* ii. 162.

Deilephila Amelia, *Dup. Hist. Nat. Lép. Fr.* ii. 11, pl. 1, f. 2.

A hybrid between *D. Vespertilio* and *D. Hippophæes*?

South France.

North America.

The following species belongs to the first European group.

13. DEILEPHILA DAUCUS.

Cervina, subtus testacea ; capitis thoracisque latera alba ; thorax albo antice univittatus, postice quadrivittatus ; abdomen e maculis nigris albisque quadrivittatum ; alæ anticæ apud costam pallidiores, venis albis, vitta media discali pallide testacea vittaque apud marginem exteriorem glauco-cana ; posticæ roseæ, costa basali vittaque postica nigro-fuscis, ciliis albis.

Sphinx Daucus, *Cram. Pap. Exot.* ii. 41, pl. 125, f. D.

Sphinx lineata, *Abbot & Smith, Nat. Hist. Lep. Ins. Georg.* i. 77, pl. 39.

Deilephila Daucus, *Steph. Ill. Brit. Ent. Haust.* i. 126, 4.

This species very closely resembles *D. Livornica*, but may be distinguished by the two additional white stripes on the thorax.

a—d. New York. From Mr. Milne's collection.

e. Mexico. From M. Hartweg's collection.

f—h. Jamaica. Presented by R. Redman, Esq.

i. Orilla, West Canada. From Mr. Bush's collection.

j, k. St. Domingo. From Mr. Tweedie's collection.

South America.

Group 1.

Like the second European group.

14. DEILEPHILA ANNEI.

Fusco-viridescens ; capitis thoracisque latera alba ; abdomen maculis lateralibus quinque nigris et albis ; alæ anticæ cinereo-umbrosæ, fascia lata sinuata fusco subvirescenti, macula basali alba nigro variegata, macula nigro-fusca supra disco ; posticæ rubro incarnatæ, basi et fascia lata sinuataque nigris, macula magna alba ad angulum interiorem.

Sphinx Annei, *Guérin, Mag. Zool.* 1839. *Ins.* pl. 2.

Chili.

Madagascar.

Like the second European group.

15. DEILEPHILA BIGUTTATA.

Olivaceo-fusca, subtus testacea ; caput et thorax albo marginata ; abdomen maculis quatuor lateralibus nigris albidisque ; alæ anticæ linea media testacea guttaque anteriore discali nigra ; posticæ rubræ, basi fasciæque nigris, plaga apud angulum anteriorem albida, margine exteriori testaceo.

Brown, with a slight olive tinge, testaceous beneath. Head and thorax with a white stripe along each side. Antennæ and legs whitish. Abdomen with two black and whitish spots on each side at the base. Fore wings with a testaceous hardly undulating middle line, and with a black discal dot in front of the line ; fringe white. Hind wings rosy, black towards the base, and with a black exterior band ; a whitish mark by the interior angle ; exterior border whitish. Length of the body 16 lines ; of the wings 32 lines.

a. Madagascar. From Mr. Stevens' collection.

Asia.

The second European group is represented by the following species.

16. DEILEPHILA LATHYRUS.

Viridi-fusca, subtus pallide testacea ; caput subtus palpique apice alba ; capitis thoracisque latera alba ; abdominis dimidium basale lateribus albidis nigro quadrimaculatis, segmenta posteriora lineis transversis interruptis albidis ; alæ anticæ testacæ plaga basali, maculis duabus anticis lineaque obliqua posticæ dilatata viridi-fuscis ; posticæ nigræ vitta subrosea, margine exteriori subtestaceo.

Deilephila Lathyrus, Boisd. MSS.

a—d. North India. From Mr. Stevens' collection.

17. DEILEPHILA OPHELTES.

Flavescens; thorax fusco bivittatus; abdomen vitta lata lutea, maculis duabus basalibus nigris; alæ anticæ macula basali nigra, vittis duabus (antica incisa, postica integra) fuscis, vitta submarginali purpurascente intus nigro marginata; posticæ roseæ, basi vittaque purpureo marginata nigris, margine flavescente.

Sphinx Opheltes, *Cram. Pap. Exot.* iii. 164, pl. 285, f. B.

Hyles Opheltes, *Hübner. Verz. Schmett.* 137, 1471.

Cape. Coromandel.

18. DEILEPHILA RUBIGINOSA.

Rubiginosa, linea dorsali alba; thorax lineis lateralibus albis; abdominis segmenta 2um et 3um nigro bimaculata; alæ anticæ cupreæ, olivaceo fasciatæ et nebulosæ, macula nigra basali; posticæ nigræ, margine externo ferrugineo-fulvo.

Ampelophaga rubiginosa, *Bremer und Grey, Beitr. zur Schmett. Faun. Noerd. China*, 52.

North China.

Genus 21. PHILAMPELUS.

Corpus crassum. Proboscis longa. Antennæ thorace vix longiores. Abdomen elongatum, oblanceolatum, thorace duplo longius. Pedes longi, sat graciles; tibiæ posticæ calcaribus quatuor longis. Alæ sat angustæ, subacuminatæ, margine exteriori perobliquo subrecto aut vix convexo, non excavato aut denticulato; posticæ vix acuminatæ, margine exteriori apud angulum interiorem subemarginato.

Philampelus, *Harris, Amer. Journ. Sci.* xxxvi.

Pholus, p., Argeus, p. et Dupo, *Hübner. Verz. Schmett.* 134, 136.

Orneus et Daphnis, *Hübner. Exot. Schmett.*

Body thick. Proboscis long. Antennæ very little longer than the thorax. Abdomen elongated, oblanceolate, about twice the length of the thorax. Legs long, rather slender; hind tibiæ with four long spurs. Wings rather narrow, slightly acuminate at the tips, very oblique and very slightly convex or almost straight along the exterior border, which is not excavated or denticulated; second

inferior vein not further from the third than from the first; fourth very far from the third. Hind wings hardly acuminate; exterior border slightly emarginate near the interior angle.

North America.

The three following species belong to one group of the genus.

1. PHILAMPELUS PANDORUS.

Cinereus; thorax linea media plagisque duabus maximis lateralibus olivaceo-viridibus; abdomen canescens, basi olivaceo-viride, fasciis interruptis pallide luteo viridescentibus; alæ anticæ subnebulosæ, strigis obscurioribus, guttis duabus discalibus nigro-fuscis, plagis paucis marginalibus olivaceo-viridibus; posticæ canescentes plaga discali fasciæque lata brevi guttisque submarginalibus nigris.

Daphnis Pandorus, Hübn. *Exot. Schmett. Sphing. Lep.* ii. *Sphing.* iii. *Leg.* ii. *Eumorph. A. Elegantes*, 2.

Philampelus ampelophaga, Harris. *Amer. Journ. Sci.* xxxvi. 300, 4.

P. ampelophaga differs considerably in appearance from *P. Satellitia*, but may be only a local variety.

a, b. United States. Presented by E. Doubleday, Esq.

c. North America. Presented by Major-General Hardwicke.

d. Jamaica.

2. PHILAMPELUS ACHEMON.

Cervino-cinereus, subtus roseus; thorax plagis duabus maximis lateralibus trigonis ferrugineo-fuscis albido marginatis; abdominis segmenta marginibus posticis albidis; alæ anticæ strigis transversis obscurioribus, plaga una costali subapicali alteraque postica quadrata strigæque apud angulum interiorem ferrugineo-fuscis; posticæ roseæ, apud marginem anteriorem fuscescentes, vitta submarginali maculari nigro-fusca.

Sphinx Achemon, Drury, *Ill. Exot. Ins.* ii. 51, pl. 29, f. 1.

Sphinx Crantor, Cram. *Pap. Exot.* ii. 11, pl. 104, f. A. *Fabr. Sp. Ins.* ii. 151, 51; *Mant. Ins.* ii. 97, 55; *Ent. Syst.* iii. 1, 375, 58. *Gmel. ed. Syst. Nat.* i. 5, 2380, 73. *Abbot & Smith, Nat. Hist. Lep. Ins. Georg.* i. 81, pl. 41.

Pholus Crantor, Hübn. *Verz. Schmett.* 134, 1435.

Philampelus Achemon, Harris, *Amer. Journ. Sci.* xxxvi. 300, 3.

a—d. New York. Presented by E. Doubleday, Esq.

3. PHILAMPELUS SATELLITIA.

Fusco-cinerascens; caput et thorax vitta abbreviata nigro-fusca; thoracis latera nigro-fusca; abdomen sæpissime testaceum, fasciis abbreviatis fuscis aut ferrugineis, maculis dorsalibus trigonis cinereis; alæ anticæ fusco nebulosæ, guttis duabus discalibus plagisque paucis trigonis marginalibus obscure fuscis, plaga postica nigro-fusca subquadrata, striga discali obliqua nonnunquam obsoleta testacea; posticæ cinereo-fusæ, basi late flavescences aut testacæ, macula magna discali guttis-que posterioribus nigro-fuscis, nonnunquam apud angulum anteriorem roseæ.

- Sphinx Satellitia, *Linn. Mant.* i. 539. *Drury, Ins. Exot.* i. 63, pl. 29, f. 1, 2. *Fabr. Sp. Ins.* ii. 148, 36; *Mant. Ins.* ii. 96, 40; *Ent. Syst.* iii. 1, 370, 42. *Gmel. ed. Syst. Nat.* i. 5, 2381, 74.
 Sphinx Lycaon, *Cram. Pap. Exot.* i. 1, 56, pl. 55, f. A.
 Pholus Licaon, *Hübner. Exot. Schmett. Lep.* ii. *Sphinx.* iii. *Leg.* ii. *Eumorph.* A. *Elegantes*, 2.
 Philampelus Satellitia, *Harris, Amer. Journ. Sci.* xxxvi. 299, 2.

The variety from Rio Janeiro is distinguished by its darker colour and large size, but in the latter character it is almost equalled by the specimen from the West Coast of America. The Bolivian one alone has the rosy spot on the hind wings.

a. Jamaica.

b. Bolivia. From Mr. Bridges' collection.

c, d. Honduras. From Mr. Dyson's collection.

e. West Coast of South America. Presented by Capt. Kellett and Lieut. Wood.

f, g. Rio Janeiro. From Mr. Stevens' collection.

Group 2.

The following *Philampelus* is distinguished from the preceding group by the white lines on the fore wings, and much resembles the first group of *Deilephila* in the distribution of the colours.

4. PHILAMPELUS VITIS.

Olivaceo-viridis; capitis thoracisque latera albida; thorax cano bivittatus; abdomen vitta dorsali lateribusque canis, segmentorum marginibus posticis albis; alæ anticæ litura discali, strigis costalibus unaque transversa ante basali, vittis duabus apud medium connexis, margine exteriori venisque albidis; posticæ glaucescentes, apud angulum interiorem roseæ, plaga discali vittaque submarginali nigris, striga discali fusca.

———, *Merian, Ins. Sur.* pl. 47, f. 1.

Sphinx vitis, *Drury, Ins. Exot.* i. 60, pl. 28, f. 1. *Suppl. Cram.*

Pap. Exot. iii. 136, 138, pl. 267, f. C; pl. 268, f. 9. *Linn.*

Syst. Nat. ii. 801, 16; *Mus. Lud. Ulr.* 354. *Wien. Schmett.*

238. *Fabr. Sp. Ins.* ii. 147, 35; *Mant. Ins.* ii. 96, 39; *Ent.*

Syst. iii. 1, 369, 41. *Gmel. ed. Syst. Nat.* i. 5, 2380, 16.

Abbot & Smith, Nat. Hist. Lep. Ins. Georg. i. 79, pl. 40.

Dupo Vitis, *Hübner. Verz. Schmett.* 137, 1466.

Philampelus Vitis, *Harris, Amer. Journ. Sci.* xxxvi. 299, 1.

Duncan, Nat. Libr. xxxvii. 104, pl. 7.

North America. Surinam.

Philampelus Hornbeckiana? *Harris, Amer. Journ. Sci.* xxxv. 299.

“Olive-gray. Head and thorax with an olive-coloured line. Tegulæ and first segment of the abdomen olive, bordered with white. Upper part of the abdomen olive, with a central gray line. Antennæ and legs white on the outer side. Fore wings dark olive, with two silvery white stripes crossing each other in the middle of the wing, the longest stripe toothed near the base of the wing; and obsolete thence to the middle; three of the veins and a band on the outer margin whitish, and two approximated black dots near the middle. Hind wings on the inner margin pink, with a large square olive-coloured spot, dusky behind, with a black transverse band.”

Isle St. Thomas.

a. Brazil. From Mr. Stevens' collection.

b. Mexico. From M. Hartweg's collection.

c. St. Domingo. From Mr. Cuming's collection.

d, e. St. Domingo. From Mr. Tweedie's collection.

f. ——— ?

Mexico.

The following species is nearly allied to *P. Achemon*.

5. PHILAMPELUS TYPHON.

Cinereus, subtus rubescens; palpi rubri; thorax vittis duabus abbreviatis lateralibus obscure fuscis; abdomen fasciis obscure fuscis, lateribus rubris; alæ anticæ glaucescente et testaceo variæ, plagis nonnullis subtrigonis nigro-fuscis; posticæ rubræ, fascia denticulata nigra glaucescente varia, margine exteriori fusco, ciliis albidis.

Sphinx Typhon, Klug, *Neue Schmett.* pl. 3, f. 1.

a. Mexico. Presented by E. Doubleday, Esq.

West Indies.

Group 1.

Like the second North-American group.

6. PHILAMPELUS JUSSIEUÆ.

Testaceus; caput thoraxque linea dorsali olivaceo-viridi; thorax vittis duabus latis olivaceo-viridibus; abdomen maculis duabus basalibus lateralibus nigris vittisque duabus dorsalibus olivaceo-viridibus, segmentorum marginibus posticis albidis; alæ anticæ olivaceo-virides, litura discali, striga transversa postica vittis duabus apud medium connexis venisque albidis, costa margineque exteriori testaceis; posticæ glaucescentes, postice roseæ, macula postica albo-fusca lineolis nigro-fuscis, macula vittaque brevi discalibus nigris.

Eumorpha elegans Jussieuæ, Hübn. *Exot. Schmett.*

Dupo *Jussieuæ*, Hübn. *Exot. Schmett. Lep.* ii. *Sphing.* iii. *Leg.* iii.

Deileph. A. Pallidovenosa; Verz. Schmett. 137, 1467.

Sphinx fasciatus, Sulz. *Hist. Ins.* pl. 20, f. 1.

a. Brazil. From Mr. Stevens' collection.

b. West Coast of South America. Presented by Captain Kellett and Lieutenant Wood.

c, d. Jamaica. Presented by R. Redman, Esq.

e. Jamaica. From Mr. Gosse's collection.

f, g. St. Domingo. From Mr. Tweedie's collection.

Group 2.

The following species is closely allied to *P. ampelophaga*.

7. PHILAMPELUS LABRUSCÆ.

Viridis, subtus testacea; abdomen nonnunquam et rarissime corpus totum et alæ anticæ testacea; abdominis latera subtus albo guttata; alæ anticæ fasciis duabus obscurioribus postice approximatis, albido marginatis; posticæ cyaneæ, nigro rufoque varicæ, apud marginem anteriorem testaceæ.

———, Merian, *Ins. Surin.* pl. 34.
 Sphinx Labruscæ, Linn. *Mus. Lud. Ulr.* 352. *Fabr. Sp. Ins.* ii. 152, 57; *Mant. Ins.* ii. 98, 63; *Ent. Syst.* iii. 1, 377, 66. *Clerck, Icon.* pl. 47, f. 3. *Cram. Pap. Exot.* ii. 133, pl. 184, f. A. *Gmel. ed. Syst. Nat.* i. 5, 2380, 14. *Swains. Zool. Ill.* ii. pl. 87.

Eumorpha elegans Labruscæ, Hübn. *Exot. Schmett. Lep.* ii. *Sphing.* iii. *Leg.* ii. *Eumorphæ A. Elegantes A.*

Argeus Labruscæ, Hübn. *Verz. Schmett.* 134, 1442.

a. Venezuela. From Mr. Dyson's collection.

b. Colombia. From M. Becker's collection.

c. Mexico. From Mr. Hartweg's collection.

d. Jamaica. Presented by Captain Parry.

e. ———?

f, g. St. Domingo. From Mr. Tweedie's collection.

South America.

8. PHILAMPELUS ANCHEMOLUS.

Purpureo-cinereus; caput nigrum; thorax vittis tribus nigris, cervino marginatis; abdomen plagis trigonis fuscis, lateribus rufis, lineis transversis albis; alæ anticæ lineis transversis undulatis fuscis, plagis nigro-fuscis, macula postica albida; posticæ nigræ, antice virides, margine anteriore testaceo.

Closely allied to *P. Satellitia*.

Sphinx Anchemolus, *Cram. Pap. Exot.* iii. 50, pl. 224, f. C.

Surinam.

9. PHILAMPELUS EACUS.

Pallide cervinus; caput et thorax anticus vitta fusca; thorax plagis duabus lateralibus duabusque posticis minoribus trigonis fuscis; abdomen maculis transversis fuscis; alæ viridescens, anticæ lineis transversis plurimis plagisque nonnullis fuscis, vitta postica lutea; posticæ plaga nigra, apud marginem exteriorem fuscae vittis duabus pallidioribus.

Closely allied to *P. Pandorus*.

Sphinx Eacus, *Cram. Pap. Exot.* iii. 166, pl. 285, f. E.

Surinam.

10. PHILAMPELUS PHORBAS.

Viridescens; thorax et abdomen nigro bivittata; abdomen apicem versus luteum; alæ anticæ fuscae, triente basali viridescens, plaga trigona lutea, strigis transversis exterioribus lineaque apicali cyaneis; posticæ nigrae, basi fasciæque lata arcuata luteis, margine exteriori viridi aut albido.

Sphinx Phorbas, *Cram. Pap. Exot.* i. 86, pl. 55, f. B. *Fabr. Sp. Ins.* ii. 145, 25; *Mant. Ins.* ii. 95, 28; *Ent. Syst.* iii. 1, 365, 30. *Gmel. ed. Syst. Nat.* i. 5.

Argeus Pandion, *Hübner. Verz. Schmett.* 134, 1443.

Sphinx Pandion, *Cram. Pap. Exot.* iv. 65, pl. 321, f. A.

Surinam.

Africa.

Group 1.

Alæ posticæ apud marginem exterioriorem subdenticulatæ.

Hind wings slightly denticulated along the exterior border.

11. PHILAMPELUS MEGÆRA.

Læte viridis, subtus testacea; palpi necnon thoracis abdominisque latera testacea; abdomen fascia anteriore nigra maculisque lateralibus albis; alæ anticæ macula basali nigra et alba, gutta discali nigra, macula costali fusca alteraque majore apud angulum interiorem; posticæ luteæ, basi fasciæque abbreviata nigris, margine exteriori ferrugineo apud angulum interiorem cano.

Sphinx Megæra, Linn. *Mus. Lud. Ulr.* 358. Clerck, *Icon.* pl. 47, f. 2. Gmel. ed. *Syst. Nat.* i. 5, 2385, 21.

Bright green, testaceous beneath. Palpi and sides of the thorax and of the abdomen testaceous. Abdomen with a row of white spots along each side, and at one-third of the length with a black band, which is dilated on each side. Fore wings with a black and white spot at the base, with a black discal dot, with a brown spot on the costa at two-thirds of the length, and with a larger brown spot near the end of the interior border; under side reddish towards the base. Hind wings luteous, black at the base, and with a black band, which is abbreviated towards the costa; exterior border ferruginous, hoary towards the interior angle. Length of the body 20 lines; of the wings 42 lines.

a. Ashanti. From the Wesleyan Missionary Society's collection.

b. Port Natal. From Mr. Stevens' collection.

c. ——— ?

Group 2.

Alæ mediocriter latæ; anticæ subacuminatæ, margine exteriore perobliquo, vix convexo, apicem versus subexcavato.

Wings moderately broad. Fore wings slightly acuminate, slightly excavated behind the tips, hardly convex and very oblique along the rest of the exterior border. Hind wings slightly denticulated.

12. PHILAMPELUS HELOPS.

Viridescens-fuscus, subtus albidus; capitis thoracisque latera albida; abdomen cervinum, basi viridescens-fuscum maculis duabus lateralibus nigris unaque majore dorsali albida; alæ anticæ ex parte cano suffusæ, fascia ante basali obscuriore viridifusca, litura discali obscure fusca, lineisque fuscis obliquis undulosis; posticæ nigro-fusæ, apud angulum interiorem testaceæ, ciliis albidis.

Sphinx Helops, Boisd. MSS.

Greenish brown, mostly whitish beneath. Head and thorax whitish along each side. Abdomen fawn-colour, greenish brown at the base, with a black spot on each side, and a larger whitish dorsal spot. Fore wings partly covered with hoary bloom, with a darker greenish brown band near the base, with a dark brown discal mark, and with some undulating brown oblique lines. Hind wings

brownish black, testaceous about the interior angle; ciliæ whitish. Wings beneath mostly luteous. Length of the body 24 lines; of the wings 52 lines.

a. Port Natal. From Dr. Krauss' collection.

Asia.

Group 1.

Proboscis mediocriter longa. Antennæ setacæ, thorace non longiores. Abdomen oblanceolatum, thorace non duplo longius. Pedes validi, longiusculi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longæ, sat latæ; anticæ acuminatæ, apud costam rectæ, margine exteriori sat obliquo subdenticulato, antice excavato; posticæ apice subrotundatæ, margine exteriori non denticulato, apud angulum anteriorem submarginato. *Mas.*—Antennæ subserratæ. *Fæm.*—Antennæ simplices.

Proboscis moderately long. Antennæ setaceous, not longer than the thorax. Abdomen oblanceolate, rather less than twice the length of the thorax. Legs stout, rather long; hind tibiæ with four moderately long spurs. Wings long, moderately broad. Fore wings straight along the costa, acuminate, rather oblique and slightly denticulated along the exterior border, which is somewhat excavated behind the tip of the wing; interior vein as usual. Hind wings somewhat rounded at the tips; exterior border not denticulated, slightly emarginate towards the interior angle. *Male.*—Antennæ slightly serrated. *Female.*—Antennæ simple.

13. PHILAMPELUS SERICEUS.

Ferrugineo-fuscus, subcanescens, subtus rufo-luteus; antennæ albidae; alæ anticæ fasciis variis undulosis pallide purpurascentibus; posticæ ferruginosæ, testaceo notatæ.

Ferruginous-brown, with a hoary tinge, mostly reddish luteous beneath. Antennæ whitish. Fore wings with various irregular mostly undulating pale purplish bands. Hind wings more ferruginous, with some testaceous marks. Length of the body 16—19 lines; of the wings 38—44 lines.

a—c. Silhet. From Mr. Argent's collection.

d—f. Silhet. From Mr. Stainforth's collection.

Country unknown.

14. PHILAMPELUS CENOPION.

Cervino-fuscus; abdomen nigro-fuscum fasciis cervinis; alæ anticae ferrugineo-fuscae, apud marginem anteriorem pallidiores, basi fasciæque cervinis; posticae fascia cervina.

Orneus CEnopion, Hübn. Exot. Schmett. ii. Eumorph. A, Elegantes, 1.

Genus 22. DARAPSA.

Corpus robustum. Caput conicum. Proboscis longiuscula. Palpi breves, validi. Antennæ setaceæ, thorace paullo longiores. Abdomen oblanceolatum. Pedes sat graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ mediocriter latæ; anticae apud costam subrectæ, apice acuminatæ, margine anteriore subundulato mediocriter obliquo, margine posteriore apud angulum anteriorem concavo; posticæ margine anteriore subexcavato. *Mas.*—Antennæ subserrato-setosæ. *Fæm.*—Antennæ simplices.

Daphnis, p., Hübn. Verz. Schmett. 134.

Chærocampa, p., Harris.

Body stout. Head conical. Proboscis rather long. Palpi short and stout. Antennæ setaceous, a little longer than the thorax. Abdomen oblanceolate. Legs rather slender; hind tibiæ with four moderately long spurs. Wings moderately broad. Fore wings almost straight in front, acuminate at the tips, moderately oblique and slightly undulating along the exterior border; interior border concave towards the interior angle; second inferior vein a little further from the third than from the first; third about thrice further from the fourth than from the second. Hind wings slightly excavated along the exterior border. *Male.*—Antennæ slightly serrate-setose. *Female.*—Antennæ simple.

North America.

1. DARAPSA CHÆRILUS.

Cervina, subtus albida; thorax maculis duabus lateralibus albidis; alæ anticae purpurascens, gutta basali fusca, fasciisque duabus diffusis ferrugineo-fuscis; posticae ferrugineæ, ciliis albis.

Sphinx Chærilus, *Cram. Pap. Exot.* iii. 91, pl. 247, f. A.

Sphinx Azaleæ, *Abbot & Smith, Nat. Hist. Lep. Ins. Georg.* i. 53, pl. 27.

Chærocampa Chærilus, *Harris, Amer. Journ. Sci.* xxxvi. 302, 2.

Fawn-colour, whitish beneath. Thorax with a whitish spot at the base of each fore wing. Fore wings purplish, with a brown discal dot, and with two somewhat diffuse ferruginous-brown bands, one towards the base and very slight, the other beyond the middle, more distinct and very broad. Hind wings ferruginous, with white ciliæ. Length of the body 14 lines; of the wings 28 lines.

a. United States. Presented by E. Doubleday, Esq.

2. DARAPSA MYRON.

Viridescens, subtus testacea; thorax macula magna dorsali trigona plagisque duabus lateralibus sordide albidis; abdomen testaceum; alæ anticæ pallide cervinæ, gutta discali fasciisque duabus obliquis viridescentibus; posticæ cinereæ, apud angulum interiorem cinereæ.

Sphinx Myron, *Cram. Pap. Exot.* iii. 91, pl. 247, f. C.

Sphinx Pampinatrix, *Abbot & Smith, Nat. Hist. Lep. Ins. Georg.* i. 55, pl. 28.

Chærocampa Pampinatrix, *Harris, Amer. Journ. Sci.* xxxvi. 301, 1.

Sphinx Pamponatrix, *Hübner, Zeit. Samml. Exot. Schmett.* f. 321, 322.

Dull green, pale testaceous beneath. Thorax dingy whitish at the base of each fore wing, and with a large dorsal triangular spot of the same hue. Abdomen testaceous. Fore wings pale fawn-colour, with a discal dot and two oblique bands dull green; interior band much narrower than the outer one, which is interlined and almost interrupted; under side mostly ferruginous. Hind wings ferruginous; exterior border cinereous towards the interior angle. Length of the body 9—11 lines; of the wings 20—24 lines.

a—c. United States. Presented by E. Doubleday, Esq.

d. Massachusetts. From Prof. Sheppard's collection.

e. ———?

West Indies.

Group 1.

3. DARAPSA PHOLUS.

Rufescens; *alæ anticæ nigro-fuscæ plaga trigona discali cinerea, extus cœrvinæ plaga postica lineaque submarginali rubris, fasciis duabus margineque exteriori fuscis; posticæ rubræ, basi pallidiores, margine postico apud angulum interiorem inciso.*

Sphinx Pholus, *Cram. Pap. Exot.* i. 137, pl. 87, f. B. *Fabr. Sp. Ins.* ii. 143, 20; *Mant. Ins.* ii. 94, 23; *Ent. Syst.* iii. 1, 363. 24. *Gmel. ed. Syst. Nat.* i. 5, 2376, 65.

West Indies.

Group 2.

Proboscis mediocriter longa. Pedes sat validi, mediocriter longi; tibiæ posticarum calcares quatuor breves. *Alæ longæ, sat angustæ; anticæ subacuminatæ, apud costæ apicem convexæ; margine exteriori perobliquo subconvexo, interiori apicem versus subconcavo; posticæ vix acuminatæ.*

Proboscis moderately long. Legs rather stout, moderately long; hind tibiæ with four short spurs. Wings long, rather narrow. Fore wings slightly acuminate, convex in front towards the tips; exterior border slightly convex, very oblique; interior border slightly concave from half its length to the interior angle. Hind wings hardly acuminate.

4. DARAPSA RHODOCERA.

Cœrvina; capitis thoracisque latera albida; antennæ rosæ; abdomen maculis duabus basalibus nigricantibus; alæ anticæ cinerascens, linea obliqua exteriori, gutta discali fusciscente, maculisque duabus diffusis ferrugineis; posticæ nigricantes, apud angulum interiorem albide.

Fawn-colour, paler beneath. Sides of the head and of the thorax whitish. Antennæ rose-colour above. Abdomen paler than the thorax, with a blackish spot on each side at the base. Fore wings with a cinereous tinge, with an oblique exterior line, with a brownish discal dot, and with two diffuse ferruginous spots, one in front, the other behind; ciliæ ferruginous. Hind wings blackish,

whitish about the interior angle ; ciliæ mostly whitish. Length of the body 17 lines ; of the wings 36 lines.

a, b. St. Domingo. From Mr. Tweedie's collection.

Africa.

Group 1.

Caput magis prominens. Alæ anticæ minus acuminatæ ; margine exteriore minus obliquus, vix excavatus aut undulosus.

Fore wings less acuminate at the tips than in the North American group ; exterior border less oblique and hardly excavated or undulating. Head more prominent.

5. DARAPSA MARGINATA.

Ferruginea ; abdomen fasciis abbreviatis pallide purpurascens ; alæ anticæ subpurpurascens aut canescentes, plaga exteriore strigae apud marginem exteriorem fuscis ; posticæ fusco-nebulosæ aut margine fusco, ciliis pallide testaceis.

Ferruginous. Antennæ testaceous. Abdomen with slight short lilac bands. Fore wings tinged with lilac, excepting a large triangular patch beyond the middle, and a brown streak along part of the exterior border. Hind wings partly clouded with brown ; ciliæ pale testaceous. Length of the body 10—11 lines ; of the wings 19—22 lines.

Var. β. Fore wings with a hoary covering. Hind wings not clouded, but with a brown border.

a—d. Port Natal. From M. Gueinzus' collection.

Asia.

6. DARAPSA HYPOTHÖUS.

Cinereo-fusca ; antennæ fulvæ ; thorax plagis duabus maximis lateralibus ferruginosis ; abdomen cervinum ; alæ anticæ sub-cervinae strigis obscurioribus et pallidioribus, gutta basali nigra fascisque tribus fuscis, fascia 1a antebasali, 2a latissima ex parte viridescens, 3a marginali ; posticæ ferruginæ, plaga interiore fasciaque undulata pallide cervinis.

Sphinx Hypothöus, *Cram. Pap. Exot.* iii. 165, pl. 285, f. F.

Daphnis Hypothöus, *Hübner. Verz. Schmett.* 134, 1440.

Amboina.

a. Java. From the East India Company's collection.

7. DARAPSA BUTUS.

Viridis ; caput et thorax testaceo marginata ; abdomen viridescens testaceum ; alæ anticæ cervinæ, basi saturatiores, margine exterioriore pallidior, gutta discali lineaque exterioriore fuscis, vitta subcostali viridi ; posticæ virides, margine postico viridi.

Sphinx Butus, *Cram. Pap. Exot.* ii. 88, pl. 152, f. A. *Fab. Mant.*

Ins. ii. 98, 62. *Gmel. ed. Syst. Nat.* i. 5, 2385, 90.

Sphinx Gnoma, *Fabr. Sp. Ins.* ii. 152, 53 ; *Mant. Ins.* ii. 97, 58 ; *Ent. Syst.* iii. 1, 376, 61. *Gmel. ed. Syst. Nat.* i. 5, 2384, 86.

Coromandel.

8. DARAPSA PLACIDA.

Ferruginea, subtus albido-rufa ; caput et thorax cana, hic plagis duabus lateralibus trigonis ferrugineis ; alæ anticæ basi canæ gutta ferruginea, fasciis duabus latis interlineatis canis ; posticæ fuscae, vitta angusta discali undulata lutea.

Ferruginous, whitish red beneath. Head and thorax hoary, the latter with a large triangular ferruginous patch on each side. Fore wings hoary, with a ferruginous dot at the base, and with two broad interlined hoary bands, the inner one more distinct than the exterior one, which becomes obsolete hindward. Hind wings brown, with a slender undulating luteous discal stripe. Length of the body 17 lines ; of the wings 34 lines.

Sumatra. In Mr. Saunders' collection.

Australia.

9. DARAPSA ERAS.

Alæ subtus rufo-ferrugineæ ; anticæ rubricantes, fusco reticulatæ et sphacelatæ, striga obliqua fusca, basi fusco-olivaceæ ; posticæ aurantiaceæ, margine fusco-ferrugineo.

Deilephila Eras, *Boisd. Faune de l'Océanie*, 185. *Feisth. Mag. Zool.* 1839; *Ins.* pl. 21, f. 2.

Australia.

Country unknown.

10. DARAPSA PORCUS.

Viridescens; caput antice fulvescens; thoracis latera albida; abdomen rubiginosum; alæ anticæ apud marginem exteriorem purpurascens; posticæ fusæ.

Oreus Porcus, *Hübner. Exot. Schmett. Lep.* ii. *Sphing.* iii. *Leg.* ii. *Eumorphæ B. Obliquostriatæ*, 1.

Genus 23. DAPHNIS.

Corpus crassum. Caput subconicum. Proboscis longa. Antennæ subfiliformes. Abdomen oblanceolatum, thorace duplo longius. Pedes longi, sat validi; tibiæ posticæ calcaribus quatuor longissimis. Alæ longæ, sat angustæ; anticæ acuminatæ, apud costam rectæ, margine exteriori perobliquo vix undulato; posticæ subacuminatæ, margine exteriori apud angulum interiorem emarginato. *Mas.*—Antennæ serratæ, thorace non breviores. *Fæm.*—Antennæ simplices, thorace paullo breviores.

Daphnis, p., *Hübner. Verz. Schmett.* 134; *Steph.*

Deilephila, p., *Boisd. Ind. Méth.*

Chærocampa, *Curt.*

Body thick. Head somewhat conical. Proboscis long. Palpi as usual. Antennæ subfiliform. Abdomen oblanceolate, about twice the length of the thorax. Legs long, moderately stout; hind tibiæ with four very long spurs. Wings long, rather narrow. Fore wings acuminate, straight along the costa, very oblique along the exterior border, which is indistinctly undulating; inferior veins much as usual. Hind wings slightly acuminate; exterior border somewhat emarginate towards the interior angle. *Male.*—Antennæ serrated, as long as the thorax. *Female.*—Antennæ simple, a little shorter than the thorax.

1. DAPHNIS NERII.

Viridis ; caput canescens ; thorax fasciis duabus anticis plagaque maxima canescentibus ; abdomen fasciis canescentibus lineisque albis interruptis, fascia lineaque basalibus albis integris, alæ anticæ ex parte purpurascens, ocello basali fascisque duabus obliquis repandis apud costam connexis, necnon striga apicali albidis ; posticæ purpurascens, linea discali undulata ciliisque albis.

———, *Frisch. Ins.* vii. 5, pl. 3, f. 1—3. *Röes. Ins. Bel.* iii. 85, pl. 15, f. 1—3 ; pl. 16, f. 4—6. *Schæff. Icon.* pl. 100, f. 3, 4. *Engr. Pap. d'Eur.* iii. 77, pl. 104, f. 153.

Sphinx Nerii, *Linn. Syst. Nat.* i. 2, 798, 5. *Cram. Pap. Exot.* iii. 51, pl. 224, f. D. *Fabr. Sp. Ins.* ii. 142, 11 ; *Mant. Ins.* ii. 93, 12 ; *Ent. Syst.* iii. 1, 360, 13. *Esp. Schmett.* ii. 43, pl. 4, f. 1—3 ; pl. 27, 199, f. 1, 2. *Gmel. ed. Syst. Nat.* i. 5, 2374, 5. *Hübner. Sphing.* 95, 1, pl. 11, f. 63 ; *Larv. Lep.* ii. *Sphing.* ii. *Leg. B, et B, a, f. 1 a, b.* *Wien. Verz.* 42, 1. *Illig. N. Ausg. dess.* i. 16, 1. *Schæff. Icon. Nom. Panz.* 110. *Panz. Faun. Germ.* 20, 17. *Bork. Eur. Schmett.* ii. 74, 138, 178, 5. *Hübner. Berl. Mag.* ii. 2, 176, 2 ; 191, 2. *Fuessl. N. Mag.* ii. 4, 371. *Vieweg, Tab. Verz.* i. 4, 4. *Rossi, Faun. Etr.* ii. 162, 1052 ; *Ed. Ill.* 256, 1052. *Brahm. Ins. Kal.* 524, 383. *Schwarz, Raup.* 196, 350, 500. *Ochs. Schmett. von Eur.* ii. 201, 1. *God. Hist. Nat. Léop. Fr.* iii. 12, pl. 13. *Meig. Syst. Besch. Eur. Schmett.* ii. 132, 1, pl. 63, f. 3 ; *Handb.* i. 93.

Daphnis Nerii, *Hübner. Verz. Schmett.* 134, 1441. *Steph. Cat. Brit. Lep.* 29.

Deilephila Nerii, *Boisd. Ind. Méth.* 47, 380. *Steph. Ill. Brit. Ent. Haust.* iv.

Chærocampa Nerii, *Curt. Brit. Ent.* xiii. pl. 626.

a—e. Italy. From Dr. Leach's collection.

f. Port Natal. From M. Gueinzus' collection.

g. Ceylon. Presented by R. Templeton, Esq.

h. Sierra Leone. Presented by the Rev. D. F. Morgan.

i. Athens. Presented by — Merlin, Esq.

j. Canara. Presented by S. N. Ward, Esq.

The specimen from Ceylon is much darker than any of the others.

Genus 24. PACHYLIA.

Corpus crassum. Caput magnum, productum, conicum. Proboscis mediocriter longa. Antennæ setaceæ, thorace paullo longiores. Abdomen oblanceolatum, thorace vix duplo longius. Pedes longi, graciles; tibiæ posticæ calcaribus quatuor longis. Alæ longæ, mediocriter latæ; anticæ acuminatæ, apud costam vix convexæ, margine exteriori perobliquo subconvexo, antice concavo; posticæ subacuminatæ, margine exteriori subdenticulato aut subrecto. *Mas.*—Antennæ subpectinatæ aut subserratæ. *Fæm.*—Antennæ simplices.

Pachylia, *Boisd. MSS.*

Pholus, p., et *Clanis*, *Hübner. Verz. Schmett.* 134.

Body thick. Head large, prominent, conical. Proboscis moderately long. Antennæ setaceous, a little longer than the thorax. Abdomen oblanceolate, nearly twice the length of the thorax. Legs long, slender; hind tibiæ with four long spurs. Wings long, moderately broad. Fore wings acuminate, hardly convex along the costa; exterior border very oblique, very slightly convex, hardly concave towards the tip of the wing; second inferior vein much further from the third than from the first; third more than twice further from the fourth than from the second. Hind wings slightly acuminate; exterior border very slightly denticulated or almost straight. *Male.*—Antennæ slightly pectinated or slightly serrated. *Female.*—Antennæ simple.

Pachylia has some affinities to *Macroglossa* and the neighbouring genera.

America.

1. PACHYLIA FICUS.

Cervino-fusca; alæ anticæ subglaucescentes, lineis transversis undulatis aut fasciis latis fuscis guttaque discali nonnunquam obsoleta fusca, plaga costali apicali testacea, posticæ fasciculo apud angulum interiorem albo; posticæ cervinæ, vittis duabus nigricantibus aut fuscis, aut totæ nigro-fuscae aut cervino-fuscae.

———, *Merian, Ins. Sur.* pl. 33.

Sphinx Ficus, *Drury, Ill. Exot. Ins.* ii. 44, pl. 26, f. 1. *Cram. Pap. Exot.* iii. 90, pl. 246, f. E; iv. 216, pl. 394, f. D. *Linn. Mus. Lud. Utr.* 353. *Clerck, Icon.* pl. 49, f. 2. *Fabr. Sp. Ins.* ii. 145, 16; *Mant. Ins.* ii. 95, 29; *Ent. Syst.* iii. 1, 366, 31. *Gmel. ed. Syst. Nat.* i. 5, 2380, 15.

Pholus Ficus, *Hübner. Verz. Schmett.* 134, 1438.

Surinam.

This species is very variable in colour and in the markings of the wings.

- a. Mexico. From M. Hartweg's collection.
- b. Brazil. From Mr. Stevens' collection.
- c. Jamaica. From Mr. Argent's collection.
- d, e. Mexico. Presented by E. Doubleday, Esq.
- f. Brazil. Presented by W. W. Saunders, Esq.
- g—k. St. Domingo. From Mr. Tweedie's collection.

2. PACHYLIA RESUMENS.

Cervina aut cinereo-fusca ; abdomen fasciis tribus basalibus nigris maculisque posterioribus lateralibus nigris ; alæ anticæ lineis transversis undulatis, gutta discali guttis tribus posticis fuscis, margine exteriori cinereo ; posticæ vittis duabus nigris, nonnunquam cervinæ basi viridescentes.

Fawn-colour, paler beneath. Abdomen with a black band on each of the three basal segments ; the four following segments with two black spots on each. Fore wings with several undulating transverse brown lines, with a brown discal dot, and with three brown dots near the interior angle ; exterior border cinereous. Hind wings paler, with a black discal stripe, which is connected at the tip of the wings with a black marginal stripe. Length of the body 17—18 lines ; of the wings 40—42 lines.

Var. β. Cinereous-brown. Hind wings dull pale fawn-colour, greenish towards the base.

- a. Rio Janeiro. From Mr. Stevens' collection.
- b. ———? Presented by E. Doubleday, Esq.
- c. Honduras. From Mr. Dyson's collection.
- d—h. St. Domingo. From Mr. Tweedie's collection.

3. PACHYLIA INCONSPICUA.

Cervina, subtestacea ; abdomen e guttis nigris bivittatum, fasciis duabus basalibus interruptis nigris ; alæ anticæ lineis tribus undulatis obliquis nigricantibus, apud marginem anteriorem obscuriores ; posticæ pallidiores, vittis duabus lineaque intermedia undulata obscure fuscis.

Fawn-colour, testaceous beneath. Abdomen with two rows of

black dots, and towards the base with two interrupted black bands. Fore wings with three undulating oblique blackish lines, a little darker between the third line and the exterior border. Hind wings a little paler than the fore wings, with two dark brown stripes, the one discal, the other marginal; a brown undulating line between them. Length of the body 21 lines; of the wings 48 lines.

Jamaica. In Mr. Saunders' collection.

4. PACHYLIA ACHEMENIDES.

Viridi-fusca; abdomen strigis sex lateralibus obliquis viridibus; alæ anticæ fasciis duabus angustis nigris, fascia lata exteriori extus arcuata nigroque marginata, margine exteriori cervino; posticæ apud costam cervinæ, macula guttulari postica cyanescente.

Sphinx Achemenides, *Cram. Pap. Exot.* iii. 53, 133, pl. 225, f. C; pl. 267, f. A, B. With the parasitic fungus.

Clanis Achemenides, *Hübner. Verz. Schmett.* 138, 1482.

Surinam.

Africa.

5. PACHYLIA ÆQUIVALENS.

Ferrugineo-fusca, subtus cervina; abdomen cervinum; alæ anticæ fasciis nonnullis undulatis fasciæque una obscuriore obliqua recta fuscis; posticæ obscuriores.

Ferruginous-brown, dark fawn-colour beneath. Abdomen mostly fawn-colour. Antennæ and legs pale fawn-colour. Fore wings with some slight undulating brown bands, and with one darker straight brown band, which extends from rather before half the length of the costa to the interior angle. Hind wings darker than the fore wings. Length of the body 22—24 lines; of the wings 46—48 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

b. ———? Presented by E. Doubleday, Esq.

Genus 25. ZONILIA.

Corpus robustum, fusiforme. Caput magnum, prominens, conicum. Proboscis longiuscula. Antennæ setaceæ, thorace non breviores. Abdomen thorace non duplo longius. Pedes longi, graciles; tibiæ posticæ calcaribus quatuor longiusculis. Alæ sat longæ, mediocriter latæ; anticæ subacuminatæ, apud costam rectæ, margine exteriori mediocriter obliquo vix convexo; posticæ apice rotundatæ, margine exteriori apud angulum interiorem vix emarginato. *Mas.*—Antennæ serratæ. *Fæm.*—Antennæ breviores, simplices.

Zonilia, *Boisd. MSS.*

Nephele, p., *Hübner. Verz. Schmett.* 133.

Body stout, fusiform. Head large, prominent, conical. Proboscis rather long. Antennæ setaceous, full as long as the thorax. Abdomen rather less than twice the length of the abdomen. Legs long and slender; hind tibiæ with four rather long spurs. Wings moderately long and broad. Fore wings slightly or hardly acuminate, straight along the costa; exterior border entire, moderately oblique, hardly convex. Hind wings somewhat rounded at the tips; exterior border very slightly emarginate towards the interior angle. *Male.*—Antennæ serrated. *Female.*—Antennæ simple, a little shorter than those of the male.

Africa.

1. ZONILIA VIRIDESCENS.

Olivaceo-viridis aut viridi-cervina; caput subtus album; antennæ apices versus albidæ; abdominis latera maculis transversis alternis nigricantibus albidisque; alæ anticæ fasciis undulatis obliquis fuscis, nonnunquam apices versus fusca striga arcuata discali argentea; posticæ apud marginem anteriorem fusca.

Dull olive-green. Head white beneath. Antennæ whitish towards the tips. Sides of the abdomen with alternate paler or whitish and blackish large transverse spots. Fore wings with some undulating oblique brown bands. Hind wings brown along the exterior border. Length of the body 16—18 lines; of the wings 30—34 lines.

Var. β. Fore wings brown, except the basal half.

Var. γ. Greenish fawn-colour. Fore wings with a curved silvery discal streak, beyond which they are partly or wholly brown.

a—c. Port Natal. From M. Gueinzus' collection.

d, e. Congo. Presented by Sir J. Richardson.

2. ZONILIA PENEUS.

Fusca; caput subtus canescens; abdominis latera nigricantia fasciis interruptis canis; alæ anticæ fasciis undulosis obscurioribus plagisque nonnunquam cervinis aut cinereis, necnon litura discali duplici aut triplici argentea; posticæ apud marginem exteriorem obscuriores.

Sphinx Peneus, *Cram. Pap. Exot.* i. 139, pl. 88, f. D. *Fabr. Mant. Ins.* ii. 93, 14. *Gmel. ed. Syst. Nat.* i. 5, 2374, 56.

Sphinx funebris, *Fabr. Ent. Syst.* iii. 1, 371, 47.

Sphinx didyma, *Fabr. Sp. Ins.* ii. 148, 41; *Mant. Ins.* ii. 96, 45; *Ent. Syst.* iii. 1, 371, 48. *Gmel. ed. Syst. Nat.* i. 5, 2381, 79.

Nephele didyma, *Hübner. Verz. Schmett.* 133, 1433.

a—c. Africa. From Mr. Milne's collection.

d—f. Sierra Leone. Presented by the Rev. D. F. Morgan.

g. Congo. Presented by Sir J. Richardson.

3. ZONILIA FUMOSA.

Fusco-cervina, subtus testacea; caput subtus albidum; caput et thorax linea dorsali nigricante; abdomen cervinum vitta lata subinterrupta nigricante; alæ anticæ fasciis obliquis fuscis apice purpurascens, apice valde obscuriores.

Zonilia fumosa, *Boisd. MSS.*

Brownish fawn-colour, testaceous beneath. Head whitish beneath. Head and thorax with a slender blackish dorsal stripe. Abdomen fawn-colour, with a broad slightly interrupted blackish stripe. Fore wings with oblique brown bands; a purplish tinge towards the tips. Hind wings much darker than the fore wings. Length of the body 14 lines; of the wings 24 lines.

a. Congo. Presented by Sir J. Richardson.

4. ZONILIA ARGENTIFERA.

Obscure olivaceo-viridis, subtus sordide albida; caput subtus album; thorax albido bistrigatus; abdomen fasciis albidis utrinque dilatatis maculisque lateralibus subquadratis nigris; alæ anticæ fasciis duabus subargentatis, litura discali argentea, fascia exterior cinerea intus angulata nigroque marginata; posticæ viridescens, margine nigricante.

Dark olive-green, dingy whitish beneath. Head white beneath. Antennæ with white tips. Thorax with a whitish streak along each side. Hind borders of the abdominal segments with whitish hind borders, which are dilated on each side, and accompanied by large subquadrate black spots. Fore wings with two slightly silvery bands, which converge hindward, and have between them a bright silvery lanceolate mark; a gray band along the exterior margin, its inner side angular and bordered with black. Hind wings greenish, blackish at the tips and along most of the exterior border. Length of the body 18 lines; of the wings 34 lines.

Port Natal. In Mr. Saunders' collection.

Asia.

5. ZONILIA MORPHEUS.

Cinereo-fusca aut ferruginea; antennæ apice albidæ; abdomen maculis lateralibus nigris; alæ anticæ nonnunquam subglaucæ, fasciis undulatis obscurioribus, litura discali argentea nonnunquam divisa tripartita aut subobsoleta; posticæ ferruginosæ, ciliis albidis.

Sphinx Morpheus, *Cram. Pap. Exot.* ii. 84, pl. 149, f. D.

Sphinx Hespera, *Fabr. Sp. Ins.* ii. 152, 54; *Mant. Ins.* ii. 91, 59;

Ent. Syst. iii. 1, 372, 49. *Gmel. ed. Syst. Nat.* i. 5, 2384, 87.

Nephele Morpheus, *Hübner. Verz. Schmett.* 133, 1432.

a. Nepaul. Presented by Major-General Hardwicke.

b. North India. From Mr. James' collection.

c—f. Landoor, N.W. Himalaya. Presented by General Hearsay.

Larva feeds on *Carissa Karandas*,—*MSS.*

g—l. North India. From Mr. Stevens' collection.

m, n. ———? From Mr. Milne's collection.

o—r. Australia. Presented by J. Hunter, Esq.

s, t. Canara. Presented by S. N. Ward, Esq.

v, u. Ceylon. Presented by R. Templeton, Esq.

w. North India. Presented by Major Baker.

6. ZONILIA FO.

Cinerea aut cervina ; abdomen maculis lateralibus ventrequé testaceis, segmentorum marginibus posticis nigro interrupte fasciatis ; alæ anticæ fasciis obliquis undulatis nigris, gutta discali testacea aut albida, ciliis inter venas testaceis ; posticæ nigro-fuscæ, costa basi ciliisque testaceis.

Zonilia Fo, Boisd. MSS.

Dark cinereous or dark fawn-colour. Abdomen testaceous beneath, and with transverse testaceous spots along each side above ; hind borders of the segments with interrupted black bands. Fore wings with undulating oblique black bands, and with a testaceous or whitish discal dot ; ciliæ testaceous between the veins. Hind wings blackish brown, testaceous towards the base in front ; ciliæ testaceous. Length of the body 10—12 lines ; of the wings 26—28 lines.

a. North India. Presented by Mrs. Mauger.

b. North India. From Mr. Argent's collection.

7. ZONILIA ACUTA.

Ferruginea, subtus albida ; thorax cano bivittatus ; abdomen e guttis nigris bivittatum, lateribus pallidioribus nigro maculatis ; alæ anticæ ex parte nebulosæ, apud marginem exteriorem glaucescentes lineisque nonnullis obliquis guttularibus nigris ; posticæ fuscæ, vitta incompleta fulva, ciliis albis.

Ferruginous, whitish beneath. Thorax with a hoary stripe along each side. Abdomen with two dorsal rows of black dots, paler and with black spots along each side. Fore wings partly shaded with darker colour, glaucous along the exterior border, and with several oblique rows of black dots. Hind wings brown, with an incomplete tawny stripe ; ciliæ white. Length of the body 15 lines ; of the wings 26 lines.

Hindustan. In Mr. Saunders' collection.

8. ZONILIA CHIRON.

Lutea; abdomen maculis lateralibus nigricantibus; alæ anticæ ferrugineæ, fasciis obliquis fuscis, basi luteæ.

Sphinx Chiron, *Cram. Pap. Exot.* ii. 62, pl. 137, f. E.

Nephele Chiron, *Hübner. Verz. Schmett.* 133, 1434.

Coromandel.

Australia.

9. ZONILIA SUBVARIA.

Cervina; antennæ apices versus albæ; caput thoraxque viridescencia, illum subtus album; pectus canum; abdomen fasciis interruptis nigris; alæ anticæ subglaucoscentes, fasciis nonnullis undulatis obliquis fuscis, striga guttaque discalibus argenteis; posticæ rufæ, subtus cinerascens.

Fawn-colour. Head and thorax tinged with green, the former white beneath. Antennæ white towards the tips. Pectus hoary. Abdomen with interrupted black bands. Fore wings with a slight glaucous tinge, and with some undulating oblique brown bands, somewhat ferruginous towards the interior angle; a discal streak, with a dot in front of its exterior side, both silvery. Hind wings red, grayish beneath. Length of the body 16 lines; of the wings 30 lines.

a. Australia. From Mr. Strange's collection.

10. ZONILIA METAPYRRHA.

Viridi-fusca, subtus cana; caput et thorax anticus cano bilineata; abdomen fusco-cervinum, maculis lateralibus transversis nigris; alæ anticæ lineis undulatis obliquis fuscis, gutta discali albida, costa fulva; posticæ rufæ, ciliis testaceis.

Greenish brown, hoary beneath. Antennæ tawny, white above towards the tips. Head and fore part of the thorax with a hoary line along each side. Abdomen brownish fawn-colour, with black transverse spots along each side. Fore wings with undulating oblique brown lines, and with a minute whitish discal dot; costa tawny. Hind wings red; ciliæ testaceous. Length of the body 17 lines; of the wings 32 lines.

a. Moreton Bay. Presented by — Gibbons, Esq.

Country unknown.

11. ZONILIA VAU.

Viridi-cervina, subtus rufescens; thoracis latera cinerea; abdomen cinereum fasciis interruptis nigris; alæ subtus ferrugineæ; alæ anticæ basi, margine exteriori maculaque costali purpurascens, necnon litura V argentea discali; posticæ basi purpurascens.

Greenish fawn-colour, reddish beneath. Sides of the thorax cinereous. Abdomen cinereous, with interrupted black bands. Wings ferruginous beneath. Fore wings obliquely purplish on full one-third of the surface from the base, and irregularly purplish along the exterior border; a purplish costal spot, behind which there is a discal V-shaped silvery mark. Hind wings purplish towards the base. Length of the body 14 lines; of the wings 28 lines.

a. ——— ?

Genus 26. ORYBA.

Corpus crassum. Proboscis longa. Palpi breves, crassi, ascendentes. Abdomen thorace non duplo longius. Pedes validi; tibiæ posticæ calcaribus quatuor breviusculis. Alæ longæ, sat angustæ; antice apud costam vix convexæ, apice peracutæ, margine exteriori perobliquo subundulato, angulo interiori acuto; posticæ apice rotundatæ.

Body thick. Proboscis long. Palpi short, thick, ascending. Abdomen rather less than twice the length of the thorax. Legs stout; hind tibiæ with four rather short spurs. Wings long, rather narrow. Fore wings hardly convex in front, very acute at the tips; exterior border very oblique, slightly undulating; interior angle acute. Hind wings rounded at the tips.

1. ORYBA ROBUSTA.

Obscure viridis, subtus ochracea; abdomen maculis lateralibus luteis nigrisque; alæ extus ferrugineo-fuscæ, anticæ fasciis tribus angustis nigris.

Dark green, orange beneath. Abdomen with luteous and black spots on each side. Wings ferruginous-brown exteriorly.

Fore wings with three slender blackish bands. Length of the body 18 lines; of the wings 44 lines.

Brazil. In Mr. Saunders' collection.

Genus 27. MACROSILA.

Corpus crassum, longum. Caput magnum, conicum. Proboscis longissima. Antennæ setaceæ, thorace paullo longiores. Abdomen thorace duplo longius. Pedes longi, validi; tibiæ posticæ calcaribus quatuor longis. Alæ anticæ longæ, mediocriter latæ; anticæ subacuminatæ, apud costam vix convexæ, margine exteriori perobliquo sæpissime subdenticulato; posticæ vix acuminatæ, margine exteriori integro aut vix denticulatæ. *Mas.*—Antennæ serratæ. *Fæm.*—Antennæ simplices.

Macrosila, *Boisd. MSS.*

Cocytius, p., *Phlegethontius*, p., *Acherontia*, p. et *Hyloicus*, p., *Hübner. Verz. Schmett.* 139, 140.

Body thick, long. Head large, conical. Proboscis very long. Antennæ setaceous, a little longer than the thorax. Abdomen tapering, about twice the length of the thorax. Legs long, stout; hind tibiæ with four long spurs. Fore wings long, moderately broad. Fore wings hardly convex in front, slightly acuminate; exterior border very oblique, generally slightly denticulated; second inferior vein much further from the third than from the first; third less than twice further from the fourth than from the second. Hind wings hardly acuminate; exterior border entire or hardly denticulated. *Male.*—Antennæ serrated. *Female.*—Antennæ simple.

This genus is closely allied to *Sphinx*, but may be distinguished by the large head, and by the broader and less acute wings. It contains the largest species of the *Sphingidæ*. The colouring of the body and of the fore wings resembles the colouring of lichen, and generally agrees with that of *Acherontia Atropos*. The proboscis of some species is extremely long.

North America.

The two following species belong to distinct groups of the genus.

1. MACROSILA BRONTES?

Cinerea ; antennæ albæ ; thorax nigro marginatus, lateribus albis ; abdomen linea media vittisque duabus lateralibus angulatis nigris ; alæ anticæ gutta discali alba, lineis transversis angulosis interioribus fuscis exterioribus nigris, fascia exteriori indeterminata vittaque postica albidis nonnunquam obsoletis, strigis exterioribus nigris ; posticæ fuscescentes, vittis tribus nigris.

Sphinx Brontes, *Drury, Ill. Exot. Ins.* ii. 52, pl. 29, f. 3.

The insect here described differs much from Drury's figure, and may be a distinct species.

a. United States Presented by E. Doubleday, Esq.

b. North America. Presented by H. Jones, Esq.

2. MACROSILA RUSTICA.

Nigro-fusca aut ferrugineo-fusca, albo varia, subtus alba ; abdomen maculis sex lateralibus luteis ; alæ anticæ fasciis duabus latis diffusis excisis albis lutescente variis, gutta discali alba ; posticæ nigro-fuscæ, maculis basalibus et posticis guttis ciliaribus albis.

———, *Merian, Ins. Surin.* pl. 5. *Sulz. Hist. Ins.* pl. 20, f. 2.

Sphinx rustica, *Cram. Pap. Exot.* iv. 21, pl. 301, f. A. *Fabr. Sp. Ins.* ii. 145, 28 ; *Mant. Ins.* ii. 95, 31 ; *Ent. Syst.* iii. 1, 366, 33. *Gmel. ed. Syst. Nat.* i. 5, 2385, 93. *Anon, Ins. Surin.* 225, pl. 101.

Acherontia Chionanthi, *Hübner. Verz. Schmett.* 139, 1495.

Sphinx Chionanthi, *Abbot & Smith, Nat. Hist. Lep. Ins. Georg.* i. 67, pl. 34. *Duncan, Nat. Libr.* xxxvii. 100, pl. 5, f. 2 ; pl. 6, f. 2.

Cocytius rustica, *Hübner. Exot. Schmett. Lep.* iii. *Leg. iv. Mand. A. Pond.* 2, f. 1, 2 ; *Verz. Schmett.* 140, 1498.

Surinam.

- a, b.* St. Domingo. From Mr. Tweedie's collection.
c, d. Brazil, From Mr. Children's collection.
e. Mexico. From M. Hartweg's collection.
f. Jamaica.
g. ———? From M. Becker's collection.

Mexico and West Indies.

The West Indian species form two groups; the first represented by *M. Cluentius* and *M. Antæus*; the second by *M. Collaris* and *M. Hasdrubal*.

3. MACROSILA CLUENTIUS.

Cinereo-nigra, subtus testacea; antennæ testacæ; thoracis latera cervina; abdomen nigrum, vitta lata cinerea, maculis lateralibus luteis; alæ anticæ lituris nonnullis nigris necnon striga subapicali vittaque postica cervinis; posticæ nigræ, macula basali, vitta interrupta media margineque interiore luteis.

Sphinx Cluentius, *Cram. Pap. Exot.* i. 124, pl. 78, f. B; ii. 43, pl. 2, 1, f. A.

Phlegethontius Cluentius, *Hübner. Verz. Schmett.* 140, 1500.

Surinam.

a. Brazil. Presented by W. W. Saunders, Esq.

b. Rio Janeiro. From Mr. Stevens' collection.

c. St. Domingo. From Mr. Tweedie's collection.

4. MACROSILA ANTÆUS.

Fusco-viridis, subtus albido-testacea; caput corniculis duobus anticis; thorax nigro bivittatus; abdomen vittis duabus integris unaque maculari nigris, vittisque tribus guttularibus albidis, necnon maculis sex lateralibus flavis; alæ anticæ fasciis angustis undulatis nigricantibus, gutta discali fasciæque exteriori undulata maculari albidis; posticæ nigro-fuscæ, basi flavæ, vitta brevi lata discali vitrea.

———, *Merian, Ins. Surin.* pl. 38. *Houttuin, Hist. Nat.* i. xl. 432, pl. 90, f. 2.

Sphinx Antæus, *Drury, Ill. Exot. Ins.* ii. 43, pl. 25, f. 1.

- Sphinx Hydaspus, *Cram. Pap. Exot.* ii. 31, pl. 118, f. A.
 Sphinx Medor, *Cram. Pap. Exot.* iv. 215, pl. 394, f. A.
 Sphinx Jatrophæ, *Fabr. Sp. Ins.* ii. 143, 18; *Mant. Ins.* ii. 94, 21;
Ent. Syst. iii. 1, 362, 22. *Gmel. ed. Syst. Nat.* i. 5, 2376, 63.
 Cocytius Jatrophæ, *Hübner. Verz. Schmett.* 140, 1497.

This species varies very much in size and in the colouring of the wings.

Brownish green, whitish testaceous beneath. Head in front with a lanceolate appendage on each side. Antennæ whitish. Thorax with a black stripe on each side. Abdomen with a stripe of blackish spots, and with three whitish dots on the hind border of each segment; a black stripe on each side; first, second and third segments with three large yellow lateral spots. Wings with whitish spots along the ciliæ. Fore wings with slender undulating blackish bands, with a whitish discal dot, and with an exterior undulating macular whitish band. Hind wings blackish brown, yellow at the base, and with a short broad vitreous discal stripe, which is intersected by the brown-bordered veins. Length of the body 19—23 lines; of the wings 44—52 lines.

Surinam.

- a, b. St. Domingo. From Mr. Tweedie's collection.
 c. ———? From Mr. Children's collection.
 d. Mexico. From M. Hartweg's collection.
 e. St. Domingo. From M. Sallé's collection.
 f—i. St. Domingo. From Mr. Tweedie's collection.
 j. From the Voyage of Capt. Collinson. "Taken at sea. Lat. 40°·2; South Long. 56·35 West."
 k. Honduras. From Mr. Miller's collection.
 l. Jamaica. From Mr. Gosse's collection.
 m. Ega. From Mr. Bates' collection.
 n. ———?

5. MACROSILA COLLARIS.

Cana, subtus alba; thorace fascia antica liturisque lateralibus fuscis; abdomen linea interrupta media maculisque transversis lateralibus fuscis; alæ subtus fuscae; anticæ gutta discali alba, lineis obliquis transversis undulosis fuscis, necnon striga fasciæque obliqua undulosa testaceis; posticæ fuscae, cano bifasciatæ, basi et apud marginem interiorem albidæ.

Closely allied to *M. lichenea*, male.

Hoary, white beneath. Thorax dark brown in front, and with some brown marks on each side. Abdomen with a much interrupted middle brown line, and with transverse brown spots along each side. Wings brown beneath. Fore wings with a white discal dot, and with oblique undulating transverse brown lines, also with a testaceous streak which extends from the base to an oblique undulating testaceous band. Hind wings brown, whitish at the base and along the interior border, and with two hoary bands. Length of the body 18—19 lines; of the wings 42—46 lines.

a. Jamaica. From Mr. Argent's collection.

b, c. St. Domingo. From Mr. Tweedie's collection.

6. MACROSILA HASDRUBAL.

Canescens; caput et thorax cinereo-fusca, hic strigis duabus posticis obliquis nigris; alæ anticæ striga basali, lineola transversa discali liturisque costalibus et exterioribus nigris necnon fascia indistincta exteriore albida; posticæ nigro-fuscæ, apud angulum interiorem albidæ, lineis undulatis fuscis. Mas.—Alæ anticæ ex magna parte fuscæ.

Sphinx Hasdrubal, *Cram. Pap. Exot.* iii. 90, pl. 246, f. F.

Hyloicus Hasdrubal, *Hübner. Verz. Schmett.* 139, 1488.

Surinam.

a—c. Brazil. From Mr. Argent's collection.

d, e. Honduras. From Mr. Miller's collection.

f. Brazil. From Mr. Stevens' collection.

g St. Domingo. From Mr. Cuming's collection.

h i. St. Domingo. From Mr. Tweedie's collection.

South America.

The four following species have the characters of the preceding group. *M. incisa* will form a distinct group.

7. MACROSILA ALBIPLAGA.

Ferruginea, subtus alba; caput postice thoraxque antice albida; abdomen cervinum, e maculis fuscis et luteis trivittatum, et e guttis transversis intermediis albis bivittatum; alæ anticæ lineis plurimis transversis undulatis nigris, fasciis duabus latis guttaque intermedia discali albis, necnon macula subcostali ferruginea; posticæ pallidiores fascia cervina apud marginem interiorem alba.

Ferruginous, white beneath. Hind part of the head and fore part of the thorax whitish. Abdomen mostly fawn-colour, with two stripes of brown and luteous spots, and with two intermediate rows of transverse white dots. Fore wings with numerous transverse undulating black lines, and with a white discal dot between two broad white bands, the exterior band broader than the other, interrupted hindward, and containing near the tip of the costa a large ferruginous spot. Hind wings paler, with a fawn-coloured band, which is white towards the interior border. Length of the body 20 lines; of the wings 50 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

8. MACROSILA FORESTAN.

Cana, viridi cervinoque varia, subtus alba; thorax fascia antica vittisque duabus nigris; abdomen strigis nigris obliquis lateralibus; alæ anticæ fasciis undulatis nigricantibus, lineis duabus rectis discalibus lineaque arcuata subapicali nigris; posticæ nigricantes, fasciis obliquis albidis, ciliis albis.

Var. *Pallide cinerea, subtus albida; palpi albi apice fuscis; thorax fascia antica vittisque duabus nigris; abdomen e maculis nigris bivittatum, guttis intermediis fuscis; alæ anticæ lineis nonnullis transversis undulatis fuscescentibus, striga apicali arcuata nigra, plaga discali ferruginea ex parte nigro marginata et albo uniguttata; posticæ obscure fuscae, apud angulum interiorem cineræ.*

Sphinx Forestan, *Cram. Pap. Exot.* iv. 216, pl. 394, f. B.

Cocytius Forestan, *Hübner. Verz. Schmett.* 140, 1499.

Hoary, more or less varied with green and fawn-colour, white beneath. Thorax with a black band in front, and a black stripe along each side. Abdomen with a black oblique streak on each side of every segment. Fore wings with undulating blackish bands, with two straight black discal lines, and with a curved black subapical line. Hind wings blackish, with whitish oblique bands which are indistinct above, except towards the interior angle; ciliæ white. Length of the body 19—21 lines; of the wings 46—52 lines.

Var. Pale cinereous, whitish beneath. Palpi white, with brown tips. Thorax with a slender black band in front, and with a

black stripe on each side. Abdomen with a middle row of brown dots and with two lateral stripes of black spots. Fore wings with some undulating transverse brownish lines, with a black curved apical streak, with a whitish discal dot, which is surrounded by a ferruginous patch, and the latter is partly bordered with black. Hind wings dark brown, cinereous about the interior angle. Length of the body 18 lines; of the wings 38 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

b, c. Brazil. From M. Becker's collection.

9. MACROSILA LICHENEA.

Cinereo-fusca, viridi suffusa, subtus albida; antennæ albidae; abdomen e strigis lateralibus obliquis nigris bivittatum; alæ anticæ cinereæ, nigro et flavo-viridi variæ, lineis transversis undulosis albidis, macula basali guttaque discali albis; posticæ albido subfuscescentes, fasciis fuscis obscurioribus.

Macrosila lichenea, Boisd. MSS.

Cinereous-brown, tinged with green, mostly white beneath. Antennæ whitish. Abdomen with two lateral rows of black oblique streaks. Ciliæ with white spots. Fore wings gray, with undulating transverse whitish lines, varied also with black and with yellowish green, and in the female with brown; a white basal spot and a white discal dot. Hind wings whitish, tinged with brown and with several darker brown bands. Length of the body 17—20 lines; of the wings 40—50 lines.

Female. Body and fore wings slightly tinged here and there with yellow, which in the fore wings chiefly appears at the base, and on a broad diffuse band which contains the discal dot.

a. Rio Janeiro. From Mr. Stevens' collection.

b. ———? From M. Becker's collection.

10. MACROSILA APER.

Mas. Nigro-fusca; caput cervinum; thorax pilis plurimis rigidis cervinis; abdomen e maculis luteis necnon e guttis albis quadrivittatum; alæ anticæ atræ, venis, gutta discali, fascia undulata exteriori, striga apicali lineaque apud marginem exteriorem testaceis; posticæ cinereæ vittis duabus fuscis, vittaque lata atra testaceo conspersa.

Macrosila aper, Boisd. MSS.

Male. Blackish brown. Head fawn-colour. Thorax with numerous erect fawn-coloured hairs. Abdomen with two rows of luteous spots and with four rows of white dots. Fore wings deep black, with the veins, a discal dot, an undulating exterior band, an apical streak, and a line along the exterior border testaceous. Hind wings gray, with two brown stripes, and with a broad deep black testaceous-powdered stripe along the exterior border; ciliæ testaceous. Length of the body 20—21 lines; of the wings 48—52 lines.

a. Santa Fé de Bogotà. From Mr. T. J. Stevens' collection.

b. Colombia. From M. Becker's collection.

Group 2.

Mas. Corpus sat gracile. Caput conicum. Proboscis longiuscula. Antennæ setacæ, serratæ, thorace paullo longiores. Abdomen thorace duplo longius, membranis duobus apicalibus foliaceis. Pedes breviusculi, sat validi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longæ, angustæ; anticæ subacuminatæ, apud costam vix convexæ, margine exteriori perobliquo; posticæ subacuminatæ.

Male. Body rather slender. Head conical. Proboscis rather long. Antennæ setaceous, serrated, a little longer than the thorax. Abdomen full twice the length of the thorax, with two foliaceous appendages at the tip. Legs rather short and stout; hind tibiæ with four moderately long spurs. Wings long and narrow. Fore wings slightly acuminate, hardly convex in front, very oblique along the exterior border, which is slightly concave towards the interior angle; third inferior vein much more than twice further from the fourth than from the second. Hind wings slightly acuminate.

11. MACROSILA INCISA.

Mas. *Cana, subtus albida; caput subtus obscure fuscum; thorax nigro bivittatus; abdomen nigro univittatum, maculis lateralibus luteis; alæ subtus fusæ, anticæ lituris marginalibus strigae apicali obscure fuscis, fascia perobliqua fusca; posticæ fusæ, basi et apud marginem interiorem pallidiores.*

Hoary, whitish beneath. Head dark brown beneath. Thorax with a black stripe on each side. Abdomen with a black stripe and with luteous spots on each side. Wings brown beneath. Fore

wings with some dark brown marginal marks, with a dark brown apical streak, and with a very oblique brown band. Hind wings brown, paler at the base and along the interior border. Length of the body 18 lines; of the wings 46 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

Africa.

M. Morganii belongs to the first West Indian group, and *M. Solani* to the group of *M. rustica*.

12. MACROSILA MORGANII.

Cervina, subtus alba; thorax vittis duabus anticis lateralibus nigris; abdomen e maculis flavis fusco marginatis bivittatum; alæ anticæ lineis nonnullis transversis undulosis pallide fuscis, lituris nonnullis costalibus, strigis duabus discalibus unaque subapicali nigris; posticæ fuscae, basi luteæ striga nigra.

Macrosila Morganii, Boisd. MSS.

Fawn-colour, white beneath. Thorax with a short black stripe on each side in front. Abdomen with a row of yellow brown-bordered spots on each side. Fore wings with some indistinct pale brown transverse undulating lines, with some black marks on the costa, with two black streaks in the disk, and one near the tip. Hind wings brown, luteous at the base, from whence a black stripe proceeds to the hinder part of the exterior border. Length of the body 20—22 lines; of the wings 52—62 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

b. Congo. Presented by Sir J. Richardson.

13. MACROSILA SOLANI.

Mas.—*Cervina, subtus albida; thorax fuscescente canoque varius, vittis duabus fuscis fasciæque postica rufa nigro cyaneoque marginata, nonnumquam cinereo-niger vitta lata cervina; abdomen subluteum maculis lateralibus flavis necnon e maculis fuscis trivittatum; alæ anticæ lineis nonnullis undulatis obliquis fuscis lineisque exterioribus albidis, gutta discali albida, macula flava guttaque obscure fusca basalibus, strigis duabus apud marginem exteriorem plagaque media fuscis, nonnumquam ex maxima parte fuscescentes: posticæ fuscae, fascia in-*

interrupta flava fasciisque duabus angustioribus cervinis.
 Fœm.—*Obscure fusca; alæ anticæ fascia una basim versus alteraque lata subapicali albidis.*

Var. *Ferrugineo-fusca, subtus alba; caput supra rufescens; abdomen fulvum, maculis flavis vittisque duabus nigricantibus lateralibus; alæ anticæ basi ferrugineæ et luteæ, fasciis nonnullis nigris, gutta discali, striga duplici obliqua fasciæque latissima interlineata subapicali albis; posticæ fuscæ, basi fasciæque luteis, fasciis tribus exterioribus pallide fuscis.*

Macrosila Solani, Boisd. MSS.

Male. Fawn-colour, whitish beneath. Thorax with some brownish and hoary hairs; a dark brown stripe on each side, and a red hind band which is bordered with black and with blue hairs. Abdomen somewhat luteous, with three stripes of brown spots, the middle row indistinct; a row of yellow spots along each side. Fore wings with some undulating oblique brown and some exterior whitish lines; a dark brown dot and a yellow spot at the base, two dark brown streaks by the exterior border and a brown middle patch, in which the lines are black; a whitish discal dot. Hind wings brown, with a yellow interrupted band near the base, and two more slender dull fawn-coloured bands.

Var. β . Thorax grayish black, with a broad fawn-coloured stripe. Fore wings mostly brown instead of fawn-colour.

Female. Dark brown. Antennæ with white tips. Fore wings with a slight whitish band near the base, and a broad whitish irregular subapical band. Colours otherwise much like those of the male. Length of the body 20 lines; of the wings 42—44 lines.

Var. β . Ferruginous-brown, white beneath. Head reddish above. Abdomen tawny, with yellow spots and with two irregular blackish stripes along each side. Fore wings ferruginous and luteous at the base, with several irregular black bands, with a white discal dot, with a double oblique white streak near the base, and with a very broad irregular interlined subapical white band. Hind wings brown, luteous at the base, near which there is a luteous band, the latter is attenuated hindward, and beyond it there are three pale brown bands.

a—d. Port Natal. From M. Gueinzus' collection.

e. Ashanti. From the Wesleyan Missionary Society's collection.

f. Mauritius. From M. Becker's collection.

g. Port Natal. From Mr. Plant's collection.

h. Madagascar. From Mr. Stevens' collection.

Asia.

The five following species, like the Australian *Macrosilæ*, belong to the second West Indian group.

14. *MACROSILA INEXACTA*.

Obscure fusca, ex parte ferruginea, subtus albida; thorax lateribus albidis strigisque duabus albis antice conjunctis; abdomen e maculis obscure fuscis trivittatum; alæ anticæ ferruginæ, fasciis undulatis obliquis nigris, gutta discali alba fasciæque exteriori angulosa albida; posticæ fusæ.

Dark brown, partly ferruginous, mostly whitish beneath. Thorax whitish along each side, and with two white streaks which are united in front. Abdomen paler than the thorax, with three rows of dark brown spots. Fore wings mostly ferruginous, with blackish undulating oblique bands, with a white discal dot, and a whitish zigzag band near the exterior border. Hind wings brown. Length of the body 14 lines; of the wings 32 lines.

a. North India. Presented by Mrs. Hawes.

b. North India. Presented by E. Doubleday, Esq.

15. *MACROSILA OBLIQUA*.

Cinerea; caput antice fuscum; thorax fusco marginatus; abdomen vittis tribus interruptis (lateralibus latioribus) fuscis; alæ anticæ flavo-viridi subinctæ, lituris costalibus et submarginalibus obscure fuscis, plaga magna fusca extus nigro alboque marginata fasciæque obliqua nigra intercisa; posticæ fusæ, fasciis obscurioribus, apud marginem interiorem albidæ.

Cinereous. Head dark brown in front. Thorax dark brown in front and along each side. Abdomen with three interrupted dark brown stripes, the lateral pair irregular and broader than the middle one. Fore wings slightly tinged with yellowish green, with some dark brown marks on the costa and along the exterior border, with a large brown patch, which is bordered on the outer side with black and with white, and is traversed by an oblique irregular black band. Hind wings brown, with darker brown bands, whitish along the interior border and about the interior angle. Length of the body 24 lines; of the wings 56 lines.

a. Ceylon. Presented by R. Templeton, Esq.

16. MACROSILA NYCTIPHANES.

Ferrugineo-fusca, subtus albida; thoracis latera nigra; abdomen fuscum, lituris nigris obliquis lateralibus fasciisque interruptis albis; alæ maculis ciliaribus albis; anticæ cinereo-fusæ, gutta discali albida, fasciis nonnullis obliquis undulatis nigricantibus ex parte albido marginatis, necnon strigis exterioribus lanceolatis albidis; posticæ obscure fusæ, fascia discali maculari albida.

Macrosila Nyctiphanes, *Boisd. MSS.*

Ferruginous-brown, mostly whitish beneath. Thorax black along each side. Abdomen brown, with black oblique marks along each side, and with an interrupted white band on the hind border of each segment. Wings with whitish spots along the ciliæ. Fore wings cinereous-brown, with a whitish discal dot, and with several oblique undulating blackish bands, which here and there have slight whitish borders; some exterior lanceolate whitish streaks. Hind wings dark brown, with a slight macular discal whitish band. Length of the body 19—20 lines; of the wings 46—54 lines.

a. Silhet. Presented by E. Doubleday, Esq.

b—d. Silhet. From Mr. Sowerby's collection.

e. Silhet. From the Rev. J. Stainforth's collection.

f. Silhet. Presented by J. C. Dale, Esq.

17. MACROSILA DISCISTRIGA.

Cinerea; thoracis latera nigra; abdomen vittis tribus fuscis, lateralibus angulosis; alæ anticæ fascia albida diffusa indeterminata, lituris anticis fuscis strigisque duabus discalibus nigris; posticæ obscure fusæ, apud angulum interiorem albidæ.

Male.—Pale brown. *Female.*—Cinereous. Thorax black along each side. Abdomen with three brown stripes, the middle one darker than the other two, which are angular. Fore wings with a diffuse more or less indistinct whitish band, with some brown marks in front, and with two black discal streaks; ciliæ of the four wings alternately white and brown. Hind wings dark brown, whitish about the interior angle. Length of the body 14—20 lines; of the wings 34—44 lines.

a. Ceylon. Presented by R. Templeton, Esq.

b, c. Silhet. Presented by J. C. Dale, Esq.

- d. Silhet. From Mr. Sowerby's collection.
 e. East Indies. From Archdeacon Clerk's collection.
 f. Hong Kong. Presented by J. E. Bowring, Esq.
 g. North China. From Mr. Cuming's collection.
 h, i. North India? Presented by E. Doubleday, Esq.
 j. ———?

18. MACROSILA MENEPHRON.

Obscure fusca; thoracis latera albida; abdomen vitta nigra; alæ ciliis albo notatis; anticæ gutta testacea, plaga costali alba, strigis nigris, lineis transversis undulatis cinereis; posticæ apud marginem interiorem cervinæ.

Sphinx Menephron, *Cram. Pap. Exot.* iii. 164, pl. 285, f. A.

Hyloicus Menephron, *Hübner. Verz. Schmett.* 139, 1485.

Amboina.

Australia.

19. MACROSILA CASUARINÆ.

Cinerea; thoracis latera nigra; abdomen fusco trivittatum; alæ anticæ fascia latissima postice abbreviata, linea exteriori transversa obliqua undulosa interrupta strigae apicali angulata nigricantibus; posticæ obscure fuscae, apud angulum interiorem albidæ fascia nigricante.

Var. Alæ anticæ fasciis nonnullis nigricantibus albidisque undulatis obliquis, lituris costalibus et exterioribus, lineis duabus rectis necnon linea arcuata subapicali nigris; posticæ obscure fuscae.

Macrosila Casuarinæ, *Boisd. MSS.*

Cinereous. Sides of the thorax black. Abdomen with three brown stripes, the middle one much more slender than the others. Fore wings with a very broad blackish band, which is abbreviated hindward, with an exterior transverse oblique undulating interrupted blackish line, and with an apical angular blackish streak. Hind wings dark brown, whitish, and with a blackish band about the interior angle. Length of the body 18 lines; of the wings 40 lines.

Var. Middle stripe of the abdomen interrupted. Fore wings with several transverse undulating lines; the broad band paler.

Fore wings with some blackish and whitish undulating oblique bands, with some black marks on the costa and near the exterior border, with two straight black lines in the disk, and with a curved black subapical line. Hind wings dark brown. Length of the body 18—21 lines; of the wings 42—52 lines.

a, b. Sydney. Presented by Dr. Sinclair.

c. Cape York, Australia. Presented by J. Macgillivray, Esq.

d. New Holland. Presented by the late Earl of Derby.

e. ———? From M. Becker's collection.

Genus 28. SPHINX.

Corpus crassum, longum. Caput breve, conicum. Proboscis longissima. Antennæ setaceæ, thoracis longitudine. Abdomen thorace duplo longius. Pedes validi, pilosi; tibiæ posticæ calcari-bus quatuor longissimis. Alæ longæ, angustæ, margine exteriore vix denticulato; anticæ acuminatæ, apud costam vix convexæ, margine exteriore perobliquo; posticæ apice subrotundatæ. *Mas.*—Antennæ serratæ. *Fæm.*—Antennæ simplices.

Sphinx, *Linn.*, &c.

Agrius, Lethia, et Phlegethontius, p., *Hübner. Verz. Schmett.* 140.

Sphinx, p., *Linn.*, &c.

Phlegethontius, p., Agrius, p., et Lethia, p., *Hübner. Verz. Schmett.* 140, 141.

Chromis? *Hübner. Verz. Schmett.* 138.

Body thick, long. Head short, conical. Proboscis very long. Antennæ setaceous, as long as the thorax. Abdomen about twice the length of the thorax. Legs stout, pilose, hind tibiæ with four very long spurs. Wings long, narrow, exterior border hardly denticulated. Fore wings acuminate, very slightly convex in front; exterior border extremely oblique; second inferior vein much further from the third than from the first; third very much further from the fourth than from the second. Hind wings almost rounded at the tips. *Male.*—Antennæ serrated. *Female.*—Antennæ simple.

Europe.

The two following species form two distinct groups in the genus.

1. SPHINX CONVULVULI.

Cinerea, nonnunquam ex parte fusca; abdomen fasciis interruptis roseis nigrisque interruptis; alæ anticæ strigis lanceolatis nigris albidisque necnon lineis duabus discalibus nigris; posticæ fascia obscure fusca vittisque tribus exterioribus fuscis.

———, *Goëd. Ins.* 18, pl. 5. *Réaumur, Ins.* i. pl. 13, f. 8. *Merian, Ins. Eur.* 30, pl. 75, f. 2. *Röes. Ins. Bel.* i. *Phal.* i. 49, pl. 7; iii. 35, pl. 6, f. 3. *Wilk. Pap.* 10, pl. 1, B. 2. *Geoffr. Ins. Par.* ii. 869, . *Schæff. Icon.* pl. 98, f. 1, 2; *Elem.* pl. 116, f. 2. *Engr. Pap. d'Eur.* iii. 13, pl. 86, f. 114; pl. 87, f. 114; 123, pl. 122, f. 114.

Sphinx Convolvuli, *Linn. Syst. Nat.* i. 2, 789, 6; *Mus. Lud. Utr.* 345, 5. *Scop. Ent. Carn.* 184, 468. *Drury, Ins.* i. pl. 25, f. 1. *Cram. Pap. Exot.* iii. 55, pl. 225, f. D. *Fabr. Sp. Ins.* ii. 150, 46; *Mant. Ins.* ii. 97, 50; *Ent. Syst.* iii. 1, 374, 54. *Gmel. ed. Syst. Nat.* i. 5, 2376, 6. *Sepp. Ins.* iii. 19, pl. 4. *Esp. Schmett.* ii. 52, pl. 5. *Hübner. Sphing.* 98, 3, pl. 14, f. 70; *Larv. Lep.* ii. *Sphing.* iii. *Leg. C, b, fig. 1, a, b.* *Wien. Verz.* 41, 1. *Illig. N. Ausg. dess.* i. 9, 1. *Poda, Ins.* 80, 3. *Schæff. Icon. Nom. Panz.* 109. *Bork. Eur. Schmett.* ii. 97, 3; 145, 11; 180, 12; *Rhein. Mag.* i. 318, 146. *Müll. Zool. Dan.* 116, 1336. *Hübner. Berl. Mag.* ii. 2, 176, 5; 192. *Fuessl. Schw. Ins.* 32, 614; *A. Mag.* i. 2, 264; *N. Mag.* iii. 163. *Rossi, Faun. Etr.* ii. 162, 1055; *Ed. Illig.* 261, 1055. *Vieweg, Tab. Verz.* i. 9, 11. *Schr. Faun. Boic.* ii. 1, 223, 1384. *Lang. Verz.* ii. 66, 548—550. *Brahm, Ins. Kal.* 522, 382. *Schwarz. Raup.* 351, 500. *Ochs. Schmett. von Eur.* ii. 236, 2. *God. Hist. Nat. Lép. Fr.* iii. 26, pl. 16. *Steph. Ill. Brit. Ent. Haust.* i. 119, 3; *Cat. Brit. Lep.* 27. *Boisd. Ind. Méth.* 48, 394. *Meig. Syst. Besch. Eur. Schmett.* ii. 144, 15, pl. 66, f. 2; *Handb.* 98, 14. *Westw. & H. Brit. Moths*, i. 12, pl. 3, f. 1—3.

Agrius Convolvuli, *Hübner. Verz. Schmett.* 140, 1506.

a—g. England. From Mr. Stephens' collection.

h, i. England.

j. Europe. From M. Becker's collection.

k. South Africa. Presented by Dr. A. Smith.

l. North Bengal. Presented by W. W. Saunders, Esq.

m, n. East Indies. From Archdeacon Clerk's collection.

- o. New Zealand. Presented by Dr. Sinclair.
 p, q. North India. From Mr. James' collection.
 r. North India. Presented by Gen. Hearsay.
 s. Scinde? From Mr. Warwick's collection.
 t. Syduey. From Mr. Lambert's collection.
 v. New South Wales. From Mr. Wood's collection.
 u. Ceylon. Presented by R. Templeton, Esq.
 w. Port Natal. From M. Gueinzus' collection.
 x. ——— ?

Var. β . *Cinerea, subtus cana; caput postice thoracisque discus obscure fusca; abdomen fasciis interruptis nigris, maculisque transversis lateralibus roseis antice albo marginatis; alæ anticæ ex parte nigricantes aut fuscae, strigis plurimis lanceolatis nigris aut albidis, litura parva arcuata discali albida; posticæ pallide cinereæ, fasciis quatuor obscure fuscis.*

Cinereous, hoary beneath. Head behind and disk of the thorax dark brown. Abdomen with interrupted black bands, and with transverse rosy lateral spots which are bordered with white in front, and are obsolete towards the tip of the abdomen; under side with a short line of black spots. Fore wings partly blackish or brown, and with numerous black or whitish lanceolate streaks; a minute curved whitish discal mark. Hind wings pale cinereous, with four dark brown bands. Length of the body 20—21 lines; of the wings 40—42 lines.

y, z. Port Natal. From M. Guienzius' collection.

Var. γ . *Cinerea, subtus cana; thorax nigro bistrigatus; abdomen fasciis nigris et roseis interruptis fasciaque basali interrupta alba; alæ anticæ litura discali arcuata albida, maculis costalibus nigricantibus, strigis lanceolatis et lineis discalibus nigris albidisque, maculis costalibus nigricantibus; posticæ canæ, fasciis tribus obscure fuscis.*

Cinereous, hoary beneath. Thorax with a blackish streak along each side, which is hoary. Abdomen with interrupted black and rosy bands, the latter much abbreviated hindward; a white interrupted band at the base. Fore wings with a curved whitish discal mark, with blackish spots along the costa, and with black and whitish discal lines and lanceolate streaks. Hind wings hoary, with three dark brown bands. Length of the body 16—20 lines; of the wings 32—42 lines.

- aa—ff. New Zealand. Presented by Col. Bolton.
 gg—kk. New Zealand. Presented by Dr. Sinclair.
 ll. ———? From M. Becker's collection.
 mm. ———?
 nn—qq. (Pupæ.) New Zealand. Presented by Col. Bolton.

2. SPHINX LIGUSTRI.

Nigro-fusca, subtus albida; capitis vertex thoracisque latera albida; abdomen atrum, fasciis interruptis roseis vittaque cervina nigro lineata; alæ anticæ cinereæ, vitta lata discali nigricante, strigis discalibus lineaque exteriori undulata nigris; posticæ pallide roseæ, vittis tribus nigricantibus.

- , *Mouff. Ins.* 91, 2, 182, f. 1. *Joust, Ins.* pl. 19, f. 1, 2. *Jacob, Mus.* i. 5, 24, pl. 1, f. 2, 4. *Albin, Ins.* pl. 7, f. 10. *Sväm. Bibl. Nat.* pl. 29, f. 1—3. *Jung. Verm.* 108. *Goëd. Ins.* i. 93, pl. 24. *List. Goëd.* 71, f. 25. *Rai, Ins.* 144, 1. *Réaum. Ins.* ii. pl. 20, f. 1—4. *Merian, Ins. Eur.* 124. *Röes. Ins. Bel.* iii. 25, pl. 5. *Wilk. Pap.* 10, pl. 1, B, 3. *Geoff. Ins. Par.* ii. 84, 7. *Harr. Ins.* 11, f. a—f. *Poda, Ins.* 81. *Schæff. Elem.* pl. 116, f. 2. *Deg. Ins.* i. 1, 17, pl. 1, f. 6; ii. 1, 172. *Sepp. Ins.* i. 1, pl. 3, 4. *Engr. Pap. d'Eur.* iii. 9, pl. 85, f. 113.
- Sphinx Ligustri*, *Linn. Faun. Suec.* 287, 1087, (ed. 1, 809); *Mus. Lud. Ulr.* 347, 7. *Syst. Nat.* ii. 2, 799, 8. *Fabr. Sp. Ins.* ii. 150, 47; *Mant. Ins.* ii. 97, 51; *Ent. Syst.* iii. 1, 374, 55. *Scop. Ent. Carn.* ii. 85, 470. *Sepp. Ins.* iii. 19, pl. 4. *Esp. Schmett.* ii. 61, pl. 6; pl. 36. *Gmel. ed. Syst. Nat.* i. 5, 2377, 8. *Hübner. Sphing.* 98, 4, pl. 14, f. 69; *Larv. Lep.* ii. *Sphing.* iii. *Leg. C, b, f.* 2. *Wien. Verz.* 41, 2. *Illig. N. Ausg. dess.* i. 9, 2. *Panz. Faun. Germ.* 8, 17. *Bork. Eur. Schmett.* ii. 92, 2; 146, 12; 180, 11; *Rhein. Mag.* i. 317, 145. *Müll. Zool. Dan.* 1, 16, 1337; *Faun. Fridr.* 37, 344. *Hübner. Berl. Mag.* ii. 2, 178, 5. *Fuessl. Schw. Ins.* 32, 615; *A. Mag.* i. 2, 265. *Rossi, Faun. Etr.* ii. 163, 1056; *Ed. Illig.* 262, 1056. *Vieweg, Tab. Verz.* i. 9, 12. *Schr. Faun. Boic.* ii. 1, 223, 1385. *Lang. Verz.* ii. 67, 553, 554. *Schwarz. Raup.* 199, 353, 496, 634. *Ochs. Schmett. von Eur.* ii. 240, 3. *God. Hist. Nat. Lép. Fr.* iii. 22, pl. 15. *Steph. Ill. Brit. Ent. Haust.* i. 121, 5; *Cat. Brit. Lep.* 27. *Boisd. Ind. Méth.* 48, 393. *Westw. & H. Brit. Moths*, i. 13, pl. 3, f. 4—6. *Frey. Neu. Beit. Schmett.* iv. 39, 516, pl. 313, f. 1. *Meig. Syst. Besch. Eur. Schmett.* ii. 142, 13, pl. 67, f. 1. *Handb.* 99, 15.

Sphinx Spireæ, *Esp. Schmett.* ii. 21, pl. 42, f. 1. *Meig. Syst. Besch.*

Eur. Schmett. ii. 143, 14, pl. 67, f. 2.

Lethia Ligustri, *Hübner. Verz. Schmett.* 141, 1508.

a—n. England. From Mr. Stephens' collection.

o—t. England.

v, u. Europe. From M. Becker's collection.

North America.

The three following species are nearly allied to *S. Convolvuli*, the others to *S. Ligustri*.

3. SPHINX CINGULATA.

Cinerea, subtus alba; thorax lineis duabus lateralibus nigris; abdomen fasciis interruptis nigris, maculis magnis transversis lateralibus roseis postice decrescentibus; alæ ciliis albo maculatis; anticæ fusco variæ, gutta discali lineisque transversis undulatis nigris albidisque, necnon lineis discalibus unaque angulata apicali nigris; posticæ pallide cinereæ, basi roseæ, fasciis tribus nigris.

Sphinx cingulata, *Linn. Mus. Lesk.* 96, 193. *Fabr. Sp. Ins.* ii. 151, 48; *Mant. Ins.* ii. 97, 53; *Ent. Syst.* iii. 1. *Gmel. ed. Syst. Nat.* i. 5, 2386, 164; 2378, 67. *Harris, Amer. Journ Sci.* xxxvi. 293, 1.

Sphinx Druræi, *Donov. Brit. Ins.* xiv. pl. 469. *Steph. Ill. Brit Ent. Haust.* i. 120, 4.

Sphinx Convolvuli, *Drury, Exot. Ins.* i. 54, pl. 25, f. 4. *Cram. Pap. Exot.* iii. 55, pl. 225, f. D. *Abbot & Smith, Nat. Hist. Lep. Georg.* i. 63, pl. 32.

Agrius cingulatus, *Hübner. Verz. Schmett.* 140, 1507; *Exot. Schmett. Lep.* ii. *Sphing.* iii. *Leg.* iv. *Manducæ*, B. *Ponderosæ*, 4.

a—c. Jamaica.

d, e. Mexico. From M. Hartweg's collection.

f, g. St. Domingo. From Mr. Tweedie's collection.

h. ——— ?

4. SPHINX CAROLINA.

Cinerea, subtus albida; abdomen fasciis interruptis nigris, maculis lateralibus luteis, necnon e guttis intermediis albis bivittatum; alæ anticæ fasciis indistinctis undulatis obliquis obscurioribus et pallidioribus, gutta discali alba; posticæ cano quadrifasciatæ.

Var. β . *Fusco-cervina; thorax anticus obscure fuscus; alæ anticæ subtestaceæ, apice et apud angulum nigræ, fascia lata posticæ abbreviata nigro-cinerea.*

Var. *Fusco-cinerea, subtus albida; thorax nigro bilineatus; abdomen maculis duabus basalibus fascisque nigris, vittis duabus guttularibus albis vittisque duabus lateralibus macularibus luteis; alæ anticæ lineis undulatis obliquis transversis nigricantibus guttaque discali albida; posticæ albidæ fasciis quatuor undulosis nigro fuscis, margine exteriori cinereo-fusco.*

———, *Brown, Jam.* 438, pl. 43, f. 17. *Merian, Ins. Sur.* pl. 57.

Sphinx Carolina, Linn. Mus. Lud. Ulr. 346. *Drury, Ill. Exot. Ins.* i. 52, pl. 25, f. 1. *Fabr. Sp. Ins.* ii. 144, 21; *Mant. Ins.* ii. 94, 24; *Ent. Syst.* iii. 1, 363, 25. *Gmel. ed. Syst. Nat.* i. 5, 2377, 7. *Abbot & Smith, Nat. Hist. Lep. Ins. Georg.* i. 65, pl. 33. *Curt. Brit. Ent.* v. pl. 197. *Steph. Ill. Brit. Ent. Haust.* i. 118, 1. *Harris. Amer. Journ. Sci.* xxxvi.

Phlegethontius Carolina, Hübn. Verz. Schmett. 140, 1503.

Manduca obscura Carolina, Hübn. Exot. Schmett. Lep. ii. *Sphing.* iii. *Leg.* iii. *Manducæ, B. Obscuræ, b.*

Gray, whitish beneath. Abdomen with interrupted black bands, with two rows of large luteous spots, and with two intermediate rows of white dots. Fore wings with indistinct undulating oblique darker and paler bands, with a white discal dot, and with white dots on the ciliæ. Hind wings with three or four hoary bands: ciliæ whitish. Length of the body 13—18 lines; of the wings 30—40 lines.

Var. β . Brownish fawn-colour. Thorax dark brown in front. Fore wings slightly testaceous and streaked with black at the tips and about the interior angle, with a broad blackish gray band which does not extend to the interior border.

Var. γ . Brownish cinereous, whitish beneath. Thorax with a black line along each side. Abdomen with two large black basal spots, with black bands, with two dorsal rows of white dots, and

with two lateral rows of large luteous spots, which successively decrease in size hindward. Fore wings with undulating oblique transverse blackish lines, with a whitish discal dot and with white spots on the ciliæ. Hind wings whitish, with four dark brown undulating bands; exterior border cinereous-brown; ciliæ whitish. Length of the body 19—21 lines; of the wings 42—50 lines.

a. United States. Presented by E. Doubleday, Esq.

b, c. Jamaica.

d. Venezuela. From Mr. Dyson's collection.

e—g. St. Domingo. From Mr. Tweedie's collection.

h. Brazil.

i. From Mr. Argent's collection. "Destroys the tobacco at Pernambuco."

j. Rio Janeiro. From Mr. Stevens' collection.

k—m. ———?

5. SPHINX QUINQUEMACULATA.

Cinerea, subtus cana; thorax lineis duabus transversis arcuatis nigris ocellisque duobus posticis glaucis nigro testaceoque marginatis; abdomen fasciis late interruptis nigris maculisque lateralibus luteis, necnon e maculis albis quadrivittatum; alæ anticæ fasciis obliquis undulosis fuscescentibus lineaque exteriori nigra; posticæ vittis tribus angulosis unaque exteriori latiore nigris; ciliæ maculis albis.

Phlegethontius Celeus, Hübn. Exot. Schmett. Lep. ii. Sphing. iii.

Leg. iv. Manducæ, B. Ponderasæ, 3.

Sphinx Carolina, Donovan. Brit. Ent. xi. pl. 361.

Sphinx quinquemaculatus, Haw. Steph. Ill. Brit. Ent. Haust. i. 119, 2.

a—c. United States. Presented by E. Doubleday, Esq.

d. ———?

6. SPHINX CINEREA.

Cinerea; abdomen linea dorsali maculisque lateralibus trigonis nigris necnon maculis transversis lateralibus albidis; alæ anticæ lineis quatuor obliquis discalibus nigris, lineis posterioribus et una submarginali albidis, macula basali nigricante; posticæ cinerascens vittis duabus nigris.

Sphinx cinerea, Hübn. Harris, Amer. Journ. Sci. xxxvi. 294, 2.

Lethia Chersis, *Hübner. Exot. Schmett. Lep.* ii. *Sphing.* iii. *Leg.* iv. *Manducæ*, B. *Ponderosæ*, 5.

a, b. United States. Presented by E. Doubleday, Esq.

c. North America.

7. SPHINX DRUPIFERARUM.

Nigro-fusca, subtus cinerea; caput antice thoracisque latera albida; abdomen cinereum lateribus albidis, vittis quinque fasciisque nigris; alæ anticæ lineis discalibus nigris, costa margineque exteriori albo-cervinis; posticæ basi vittisque duabus albidis.

Sphinx drupiferarum, Abbot & Smith, *Nat. Hist. Lep. Ins. Georg.* i. 71, pl. 36. *Harris, Amer. Journ. Sci.* xxxvi. 294, 3.

Lethia drupiferarum, *Hübner. Verz. Schmett.* 141, 1510.

a. United States.

8. SPHINX KALMIÆ.

Ferruginea, subtus albida; capitis thoracisque latera albida; thorax nigro bivittatus; abdomen cervinum linea dorsali nigra maculisque lateralibus magnis nigris albisque; alæ anticæ cervinæ, lineis discalibus albidis, strigis nigris lineaque alba apud marginem exteriorem, margine interiore fusco; posticæ canescentes, vittis duabus nigris, margine exteriori ex parte ferrugineo.

Sphinx Kalmiæ, Abbot & Smith, *Nat. Hist. Lep. Ins. Georg.* i. 73, pl. 37.

Lethia Kalmiæ, *Hübner. Verz. Schmett.* 141, 1511.

a, b. Orilla, West Canada. From Mr. Bush's collection.

c. ———?

d, e. Trenton Falls, New York. Presented by E. Doubleday, Esq.

9. SPHINX GORDIUS.

Roseo-canescens; caput antice thoracisque discus nigra; abdomen linea dorsali fasciisque interruptis nigris; alæ anticæ apud margines nigro-fusco nebulosæ lineis canescentibus, guttu albida discali lineisque nonnullis discalibus nigris; posticæ nigræ, basi vittaque canescentibus.

Sphinx Gordius, *Cram. Pap. Exot.* iii. 91, pl. 247, f. B. *Harris*,
Amer. Journ. Sci. xxxvi. 295, 6.

Lethia Gordius, *Hübner. Verz. Schmett.* 141, 1512.

a. United States. Presented by E. Doubleday, Esq.

b. North America. Presented by H. Jones, Esq.

10. SPHINX SORDIDA.

Fusco-cinerea, subtus pallidior; thorax nigro quadrivittatus; abdomen vittis duabus dorsalibus testaceis fasciisque interruptis albidis; alæ anticæ fasciis incompletis fuscis lineisque discalibus nigris; posticæ nigræ vittis duabus ciliisque canescentibus.

Sphinx sordida, *Harris, Amer. Journ. Sci.* xxxvi. 296, 7.

a—c. United States. Presented by E. Doubleday, Esq.

d. United States. From Mr. Milne's collection.

Mexico.

The following species belongs to the group of *S. Ligustri*.

11. SPHINX LUGENS.

Nigro-cinerea; capitis thoracisque latera pallidiora; thorax nigro bivittatus; abdomen fasciis interruptis albis et nigris; alæ anticæ fusco subinctæ, lituris discalibus strigisque discalibus et exterioribus nigris, guttis duabus discalibus albidis; posticæ nigræ, fasciis duabus albidis undulatis.

Blackish gray, paler beneath. Head and thorax paler on each side. Thorax with two black stripes. Abdomen with interrupted white and blackish bands. Fore wings slightly tinged with brown, with black costal marks, and with black discal and exterior streaks; two whitish discal dots, the fore one occasionally obsolete. Hind wings black, with two whitish undulating bands; ciliæ white. Length of the body 17—19 lines; of the wings 42—46 lines.

a—e. Mexico. From M. Hartweg's collection.

South America.

S. Justiciæ and *S. Hannibal* are allied to *S. Ligustri*; *S. Lucetius* and *S. Paphus* to *S. Convolvuli*.

12. SPHINX JUSTICIÆ.

Cinerea; caput et thorax nigro bivittata, lateribus albidis; abdomen fasciis interruptis nigris, maculisque transversis lateralibus albidis; necnon vittis duabus intermediis macularibus aurato-flavis; alæ anticæ fusco albidoque variæ, strigis lanceolatis lineisque nigris, necnon striga lata basali rosea; posticæ pallide cinereæ, basi fasciisque undulatis nigris, interiore furcata.

Sphinx Justiciæ, *Boisd. MSS.*

Cinereous. Head and thorax whitish on each side, with two black stripes. Abdomen with interrupted black bands, and with transverse lateral whitish spots, and with two middle rows of transverse gilded yellow spots. Fore wings partly brown and whitish, with black lines and lanceolate streaks, and with a broad basal rosy streak. Hind wings pale cinereous, black at the base, and with two undulating black bands, the inner one emitting a fork towards the base. Length of the body 17—19 lines; of the wings 40—44 lines.

a. Brazil. From Mr. Stevens' collection.

b. Rio Janeiro. From Mr. Stevens' collection.

13. SPHINX HANNIBAL.

Cinereo-fusca, subtus testacea; antennæ albæ; thoracis dimidium anticum nigro-fuscum; abdomen linea media fasciisque interruptis nigris, maculis lateralibus luteis, lineolis transversis intermediis albidis; alæ anticæ plaga exteriori nigro-cinerea, fasciis duabus duplicatis angulosis nigris; posticæ fuscae, maculis tribus basalibus vittaque exteriori pallide cinereis nigro marginatis.

Sphinx Hannibal, *Cram. Pap. Exot. iii. 39, pl. 216, f. A.*

Phlegethontius Hannibal, *Hübner. Verz. Schmett. 140, 1502.*

Surinam.

a. Brazil. From Mr. Stevens' collection.

14. SPHINX LUCETIUS.

Nigro-fusca, subtus albida; thoracis latera cervina; abdomen maculis lateralibus luteis; alæ anticæ ex parte cervinæ, lineis transversis undulatis nigris, gutta discali albida; posticæ vittis albidis et nigris.

Sphinx Lucetius, *Cram. Pap. Exot.* iv. 21, pl. 301, f. B.

Phlegethontius Lucetius, *Hübner. Verz. Schmett.* 140, 1501.

Surinam.

a, b. Brazil. From Mr. Stevens' collection.

c. Brazil. From M. Becker's collection.

15. SPHINX PAPHUS.

Nigricans; caput et thorax fulvo conspersa; abdomen e guttis albis quadrivittatum, vitta ferruginea, maculis lateralibus luteis; alæ anticæ lineis transversis strigisque cinereis; posticæ sordide albidæ, vittis nigris fusco variis, apud marginem anteriorem ferruginosis.

———, *Merian, Ins. Surin.* pl. 55.

Sphinx Paphus, *Cram. Pap. Exot.* iii. 39, pl. 216, f. B.

Phlegethontius Paphus, *Hübner. Verz. Schmett.* 140, 1504.

Surinam.

Country unknown.

16. SPHINX EREMITUS.

Cervino-fusca; thorax vittis nigris; abdomen cinerascens, fasciis interruptis nigris; alæ anticæ strigis pallidioribus et nigris, gutta discali albida; posticæ albido-testaceæ, vittis duabus margineque posteriore nigricantibus.

Agrius Eremitus, *Hübner. Exot. Schmett. Lep.* ii. *Sphing.* iii. *Leg.* iv. *Manducæ, B. Ponderosæ*, 4.

Nearly allied to *S. sordida*, Hübner.

S. Erotus differs much from all the preceding species, and may form a new genus.

17. SPHINX? EROTUS.

Fusca; thoracis latera albida; abdomen ochraceum; alæ anticæ gutta discali lutea, fascia cervina, plaga basali fusco bisignata cinerea, margine exteriori cinereo; posticæ luteæ, fusco marginatæ.

Sphinx Erotus, *Cram. Pap. Exot.* ii. 12, pl. 104, f. B. *Fabr. Sp. Ins.* ii. 145, 24; *Mant. Ins.* ii. 95, 27; *Ent. Syst.* iii. 1, 365, 28. *Gmel. ed. Syst. Nat.* i. 5, 2379, 69.

Chromis Erotus, *Hübner. Verz. Schmett.* 138, 1479.

Genus 29. ANCERYX.

Corpus robustum. Caput subconicum. Proboscis longa. Antennæ graciles, subfiliformes. Abdomen oblanceolatum, thorace vix duplo longius. Pedes longi, graciles; tibiæ posticæ calcaribus quatuor longissimis. Alæ longæ, angustæ; anticæ acuminatæ, apud costam rectæ, margine exteriori perobliquo subdenticulato; posticæ subacuminatæ, apud marginem exterioriorem vix denticulatæ. *Mas.*—Antennæ subserratæ, thorace non breviores. *Fæm.*—Antennæ simplices, thorace paullo breviores.

Hyloicus, p., et Erinnyes, *Hübner. Verz. Schmett.* 139.

Anceryx, *Bois. MSS.*

Body stout. Head slightly conical. Proboscis long. Palpi as usual. Antennæ slender, subfiliform. Abdomen oblanceolate, nearly twice the length of the thorax. Legs long, slender; hind tibiæ with four very long spurs; fore tibiæ tufted as usual. Wings long and narrow. Fore wings straight along the costa, acuminate, very oblique and slightly denticulated along the exterior border; second inferior vein rather further from the third than from the first; third more than twice further from the fourth than from the second. Hind wings slightly acuminate, hardly denticulated along the exterior border. *Male.*—Antennæ very slightly serrated, as long as the thorax. *Female.*—Antennæ simple, a little shorter than the thorax.

Europe.

1. ANCERYX PINASTRI.

Cana, subtus albida; thorax fusco bivittatus; abdomen vittis duabus lateralibus macularibus lineaque intermedia obscure fuscis; alæ anticæ fasciis duabus undulatis fuscis strigisque duabus discalibus nigro-fuscis; posticæ fuscae, basi pallidiores.

———, *Gadd. Dissert.* 28. *Réaum. Ins.* i. pl. 13, f. 8. *Röes. Ins. Bel.* i. *Phal.* i. pl. 6. *Deg. Ins.* i. 126, pl. 10, f. 1—3; ii. 168, pl. 2, f. 14. *Schæff. Icon* pl. 110, f. 1, 2. *Sepp, Ins.* i. 1, 23, pl. 5. *Engr. Pap. d'Eur.* iii. 17, pl. 88, f. 115.

Sphinx Pinastri, *Linn. Syst. Nat.* i. 2, 802, 22; *Faun. Suec.* 288, 1088. *Scop. Ent. Carn.* 187, 473. *Fabr. Sp. Ins.* ii. 146, 30; *Mant. Ins.* ii. 95, 33; *Ent. Syst.* iii. 1, 367, 35. *Drury, Ins. Exot.* i. 58, pl. 27, f. 2. *Esp. Schmett.* ii. 106, pl. 12, f. 1—3; pl. 36, f. 7. *Gmel. ed. Syst. Nat.* i. 5, 2385, 22. *Hübner. Sphing.* 98, 1, pl. 13, f. 67; *Larv. Lep.* ii. *Sphing.* iii. C, a, b, f. 1. *Wien. Verz.* 41, 3. *Illig. N. Ausg. dess.* i. 10, 3. *Poda, Ins.* 80, 4. *Schæff. Icon. Nom. Panz.* 119. *Panz. Faun. Germ.* 82, 22. *Bork. Eur. Schmett.* ii. 101, 4; 147, 180, 13; *Rhein. Mag.* i. 317, 144. *Hübner. Berl. Mag.* ii. 2, 182, 10. *Fuessl. Schw. Ins.* 33, 621; *A. Mag.* i. 2, 266; *N. Mag.* iii. 2, 157, 130; 158, 139. *Vieweg, Tab. Verz.* i. 6, 6. *Schrank, Faun. Boic.* ii. 1, 224, 1386. *Lang. Verz.* ii. 67, 555, 557. *Brahm, Ins. Kal.* 127, 63. *Schwarz, Raup.* 496, 633. *Ochs. Schmett. von Eur.* ii. 243, 4. *God. Hist. Nat. Lép. Fr.* iii. 30, pl. 17, f. 1. *Meig. Syst. Besch. Eur. Schmett.* ii. 145, 16, pl. 67, f. 3; *Handb.* 99, 16. *Steph. Ill. Brit. Ent. Haust.* i. 121, 6; *Cat. Brit. Lep.* 273. *Westw. & Humph. Brit. Moths,* i. 14, pl. 3, f. 7—9. *Boisd. Ind. Méth.* 48, 392. *Hyloicus Pinastri*, *Hübner. Verz. Schmett.* 139, 1483.

Var. β. Hoary, whitish beneath. Thorax with two brown stripes. Abdomen with a dark brown line, and with two rows of lateral dark brown spots. Wings brownish beneath; ciliæ white, with brownish spots. Fore wings with two undulating brown bands and with two blackish brown discal streaks. Hind wings brown, paler towards the base. Length of the body 14—15 lines; of the wings 30—36 lines.

a, b. England. From Mr. Stephens' collection.

c, d. England.

e, f. Europe. From M. Becker's collection.

g. North India. From Mr. Stevens' collection.

h. Scinde? From Mr. Warwick's collection.

North America.

The two following species belong to the group of *A. Pinastri*.
A. Ello forms a distinct group.

2. ANCERYX CONIFERARUM.

Cinerea, subtus albida; thorax fusco bivittatus; abdomen linea dorsali vittisque duabus lateralibus macularibus fuscis necnon maculis lateralibus albidis; alæ ciliis albis fusco maculatis; anticæ fasciis duabus undulatis fuscis lineisque duabus discalibus nigricantibus; posticæ fuscæ.

Sphinx Coniferarum, Abbot & Smith, *Nat. Hist. Lep. Ins. Georg.* i. 83, pl. 42. Harris, *Amer. Journ. Sci.* xxxvi. 296, 10.

Hyloicus Coniferarum, Hübn. *Verz. Schmett.* 139, 1484.

a. United States. Presented by E. Doubleday, Esq.

b. Georgia. From Mr. Abbot's collection.

3. ANCERYX PLEBEIA.

Pallide cinerea, subtus alba; thorax nigro bivittatus; abdomen vittis quinque fasciisque nigricantibus lateribus albidis; alæ anticæ fasciis undulatis indistinctis lineisque obscurioribus fuscis, gutta discali alba; posticæ nigricantes, basi vittaque cinereis.

Sphinx plebeia, Fabr. *Sp. Ins.* ii. 146, 31; *Mant. Ins.* ii. 95, 34; *Ent. Syst.* iii. 1, 367, 36. Gmel. ed. *Syst. Nat.* i. 5, 2385, 91. Hübn. *Exot. Schmett.* ii. f. 463, 464? Harris, *Amer. Journ. Sci.* xxxvi. 296, 9. Steph. *Ill. Brit. Ent. Haust.* i. 122, 7.

A species very nearly allied to this is figured in Hübner, *Exot Schmett.* f. 463, 464.

a—c. United States. Presented by E. Doubleday, Esq.

4. ANCERYX ELLO.

Canescens, subtus albida; thorax vix cristatus; abdomen fasciis interruptis nigris; alæ anticæ sublineatæ, extus nigro guttatæ; posticæ rufescentes, nigro-fusco marginatæ. Mas. — Thorax fusco strigatus; alæ anticæ cinereæ, fusco subnebulosæ, vitta media obscuriore.

Sphinx Ello, *Linn. Syst. Nat.* 800, 13; *Mus. Lud. Ulr.* 351.
Drury, Ins. Exot. i. 58, pl. 27, f. 3. *Cram. Pap. Exot.* iv. 24,
 pl. 301, f. D. *Fabr. Sp. Ins.* ii. 143, 17; *Mant. Ins.* ii.
 94, 20; *Ent. Syst.* iii. 1, 362, 21. *Gmel. ed. Syst. Nat.* i. 5,
 2375, 13. *Harris, Amer. Journ. Sci.* xxxvi. 297, 11.

—————, *Merian, Ins. Surin.* pl. 61, f. 2.

Erinnys Ello, *Hübner, Verz. Schmett.* 139, 1489.

a—f. Mexico. From M. Hartweg's collection.

g. Brazil. From Mr. Stevens' collection.

h—j. North-West Coast of America. Presented by Capt. Kellett and
 Lieut. Wood.

k—n. St. Domingo. From Mr. Tweedie's collection.

West Indies.

The West Indian species belong to the group of *A. Ello*.
A. Alope may be distinguished from the others by the double crest
 on the thorax, and *A. Caicus* by the fore wings, which are not den-
 ticulated.

5. ANCERYX SCYRON.

Cano-cinerea; thorax fascia lata antica fasciculisque duobus pos-
 tice nigricantibus; abdominis segmenta fasciis interruptis
 nigricantibus; alæ anticæ fasciis paucis plus minusve deter-
 minatis et ramosis nonnunquam subobsoletis fuscis; posticæ
 luteæ, nigro late marginatæ, plaga apud angulum interiorem
 canescente.

—————, *Merian, Ins. Surin.* pl. 62, f. 2.

Sphinx Scyron, *Cram. Pap. Exot.* iv. 23, pl. 301, f. E.

Erinnys Scyron, *Hübner, Verz. Schmett.* 139, 1491.

a. Brazil. From Mr. Stevens' collection.

b. Villa Nova. From Mr. Bates' collection.

c. Venezuela. From Mr. Dyson's collection.

d, e. St. Domingo. From Mr. Tweedie's collection.

6. ANCERYX ALOPE.

Fusca; thorax bicristatus; abdomen nigricans, fasciis interruptis
 vittaque dorsali canis; alæ anticæ lineatæ, nigro punctatæ,
 striga postica plus minusve repanda pallidior, nonnunquam
 nigro-fuscæ; posticæ luteæ, margine lato fusco.

Var. β . Fœm. *Fusca, subtus cinerea; caput et thorax vitta nigricante; abdomen canum, vittis tribus angustis fasciisque latis nigris, apice cervinum; alæ anticæ strigis lineisque nigrificantibus non bene determinatis strigisque exterioribus cervinis; posticæ luteæ, fasciis latissimis nigro-fuscis, margine exteriori subcervino.*

Sphinx Alope, *Drury, Ins. Exot.* i. 58, pl. 27, f. 1. *Append. Cram. Pap. Exot.* iv. 23, pl. 301, f. G. *Fabr. Mant. Ins.* ii. 94, 19; *Ent. Syst.* iii. 1, 362, 20. *Gmel. ed. Syst. Nat.* i. 5, 2375, 62.

Erinnys Alope, *Hübner. Verz. Schmett.* 139, 1492.

Var. β . Female. Brown, cinereous beneath. Head and thorax with a blackish stripe. Abdomen hoary, with three slender black stripes, and with broad black bands; tip fawn-colour. Fore wings with indistinct blackish lines and streaks, and with some exterior fawn-coloured streaks. Hind wings luteous, with very broad dark brown borders; exterior margin somewhat fawn-coloured. Length of the body 20 lines; of the wings 39 lines.

Surinam.

a, b. America. From Mr. Milne's collection.

c. Brazil. From Mr. Stevens' collection.

d. Jamaica. From Mr. Gosse's collection.

e, f. St. Domingo. From Mr. Tweedie's collection.

7. ANCERYX OBSCURA.

Cana; antennæ albæ; thorax fascia antica vittisque duabus nigro-fuscis; abdomen lineis duabus fuscescentibus; alæ anticæ vitta, strigis interioribus lanceolatis, maculis costalibus punctisque exterioribus nigro-fuscis nonnunquam subobsoletis; posticæ rufescentes, margine fusco.

Var. β . *Cana, subtus albida; caput et thorax anticus apud discum vittæque posteriores subobliquæ fusca; alæ anticæ vitta media strigisque plurimis cuneatis fuscis, subtus rufo-cervinæ; posticæ rufo-cervinæ, margine angusto fusco.*

Sphinx obscura, *Fabr. Sp. Ins.* ii. 142, 14; *Mant. Ins.* ii. 94, 16; *Ent. Syst.* iii. 1, 361, 17. *Gmel. ed. Syst. Nat.* i. 5, 2375, 58.

Erinnys Stheno, *Hübner. Exot. Schmett. Lep.* ii. *Sphing.* iii. *Leg.* iv. *Mand. A. Leves*, 2.

Var. β. Hoary, whitish beneath. Head and fore part of the thorax with a brown disk, which emits a slightly oblique brown stripe along each side of the thorax. Fore wings with a slight brown middle stripe, and with numerous brown cuneiform streaks; under side reddish fawn-colour. Hind wings reddish fawn-colour, with a narrow brown border. Length of the body 10 lines; of the wings 19 lines.

a—c. Mexico. From M. Hartweg's collection.

d. St. Domingo. From M. Becker's collection.

e—g. St. Domingo. From Mr. Tweedie's collection.

8. ANCERYX GUTTULARIS.

Canā, subtus albida; caput et thorax anticus linea media fusca; abdomen pallide subpurpurascens vitta gracili albida; alæ anticæ striga media guttisque nonnullis nigris; posticæ fuscae, basi ferrugineæ, ciliis albis.

Hoary, whitish beneath. Head and fore part of the thorax with a brown middle line. Abdomen with a slender whitish stripe, and with a slight lilac tinge. Wings beneath pale brown, white at the base and along the interior border of the hind wings. Fore wings with a black streak along the middle, and with several black dots. Hind wings brown, ferruginous at the base; ciliæ white. Length of the body 10 lines; of the wings 18 lines.

This species much resembles *A. vetusta*, but the fore wings are shorter, and the exterior border is less oblique and slightly convex; the hind wings also are less acuminate.

a, b. St. Domingo. From Mr. Tweedie's collection.

9. ANCERYX CENOTRUS.

Cinerea, subtus albida; thorax bicristatus; abdominis segmenta marginibus pallidioribus; alæ anticæ lineatæ et strigatæ, nonnunquam fuscae marginibus ex parte subcervinis; posticæ rufescentes, margine exteriori nigro-fusco.

Sphinx CEnotrus, *Cram. Pap. Exot.* iv. 22, pl. 301, f. C.

Erinnys CEnotrus, *Hübner. Verz. Schmett.* 139, 1490.

a. West Coast of South America. Presented by Captain Kellett and Lieutenant Wood.

b—g. Mexico. From M. Hartweg's collection.

h—l. St. Domingo. From Mr. Tweedie's collection.

10. ANCERYX CAICUS.

Cinerea ; thorax vittis tribus nigro-fuscis ; abdomen lineis duabus dorsalibus fasciisque latis interruptis nigris ; alæ anticæ vitta discali oblique interlineata lineaque postica nigro-fuscis necnon linea discali albida ; posticæ rufæ, radiis marginalibus nigris.

Sphinx Caicus, *Cram. Pap. Exot.* ii. 42, pl. 125, f. F. *Fabr. Sp. Ins.* ii. 151, 49; *Mant. Ins.* ii. 97, 53; *Ent. Syst.* iii. 1, 375, 57. *Gmel. ed. Syst. Nat.* i. 5, 2378, 68.

a, b. St. Domingo. From Mr. Tweedie's collection.

c. Honduras. From Mr. Miller's collection.

d. South America.

South America.

The following species much resembles *A. Scyron*.

11. ANCERYX CARICÆ.

Nigricans ; antennæ albæ ; abdomen vitta cinerea fasciis interruptis canis ; alæ anticæ nigro-cinereæ, lineis nonnullis obliquis undulosis nigricantibus, punctis plagaque postica basali albidis, vitta discali ferruginea ; posticæ luteæ, radiis plagaque apud angulum interiorem nigris.

Sphinx Caricæ, *Linn. Mus. Lud. Ulr.* 350. *Clerck, Icon.* pl. 47, f. 1. *Fabr. Sp. Ins.* ii. 153, 58; *Mant. Ins.* ii. 98, 64; *Ent. Syst.* iii. 1, 378, 67. *Gmel. ed. Syst. Nat.* i. 5, 2379, 11.

———, *Merian, Ins. Sur.* pl. 64, f. 1, 2.

Erinnys Caricæ, Hübn. Verz. Schmett. 139, 1493.

Sphinx Cacus, *Cram. Pap. Exot.* iv. 73, pl. 46, f. E. *Fabr. Sp. Ins.* ii. 143, 15; *Mant. Ins.* ii. 94, 17; *Ent. Syst.* iii. 1, 361, 18. *Gmel. ed. Syst. Nat.* i. 5, 2375, 59.

a, b. Colombia? From M. Parzudaki's collection.

Africa.

Group of *A. Pinastris*.12. *ANCERYX JUNIPERI*.

Cana, subtus albida; thorax vittis duabus nigricantibus; abdomen vittis duabus lateralibus lineaque intermedia fuscis; alæ anticæ strigis paucis discalibus et subapicalibus nigris; posticæ obscure fuscae.

Sphinx Juniperi, Boisd. MSS.

Hoary, whitish beneath. Thorax with two blackish stripes. Abdomen with a brown line and with two lateral brown stripes. Wings brown beneath; ciliæ white, with brown spots. Fore wings with a few discal and subapical black streaks. Hind wings dark brown. Length of the body 13 lines; of the wings 26 lines.

a, b. Port Natal. From M. Gueinzus' collection.

c. Port Natal. From Mr. Stevens' collection.

Country unknown.

13. *ANCERYX PÆCILA*.

Abdominis latera nigro maculata; alæ subacutæ, fusco nebulosæ; anticæ canæ, puncto medio albo, lineolis aliquot nigris; posticæ fuscae, fascia lata pallida.

Sphinx pæcila, Steph. Ill. Brit. Ent. Haust. i. 122, 8.

Genus 30. *DOLBA*.

Corpus sat robustum. Proboscis breviuscula. Antennæ setaceæ, subserratae, thorace longiores. Abdomen sat longum. Pedes sat validi; tibiæ posticæ calcaribus quatuor longis. Alæ breviusculæ, latiusculæ; anticæ margine exteriori integro.

Hyloicus, p., Hübn. Verz. Schmett. 138.

Body rather stout. Head small. Proboscis somewhat short. Antennæ setaceous, very minutely serrated, longer than the thorax. Abdomen rather long. Legs moderately stout; hind tibiæ with four long spurs. Wings rather short and broad; fore wings entire and moderately oblique along the exterior border.

1. DOLBA HYLÆUS.

Ferrugineo-cinerea aut ferruginea, subtus albida; capitis thoracisque latera alba; thorax albo quadriguttatus; abdomen nigro bivittatum, maculis dorsalibus fuscis, lineis transversis guttisque intermediis lateralibus albis; alæ anticæ fasciis undulatis nigris albidisque, gutta discali alba; posticæ nigricantes, plaga basali fasciaque subduplicata albidis.

Sphinx Hylæus, *Drury, Ins. Exot.* ii. 45, pl. 26, f. 3. *Cram. Pap. Exot.* ii. 16, pl. 107, f. C. *Fabr. Sp. Ins.* ii. 149, 45; *Mant. Ins.* ii. 97, 49; *Ent. Syst.* iii. 1, 373, 53. *Gmel. ed. Syst. Nat.* i. 5, 2383, 81. *Harris, Amer. Journ. Sci.* xxxvi. 296, 8.

Sphinx Prini, *Abbot & Smith, Nat. Hist. Lep. Ins. Georg.* i. 69, pl. 35.

Hyloicus Hylæus, *Hübner, Verz. Schmett.* 139, 1487.

a. North America. From Mr. Milne's collection.

b. Massachusetts. From Prof. Sheppard's collection.

c—e. United States. Presented by E. Doubleday, Esq.

f, g. Mexico. From M. Hartweg's collection.

2. DOLBA PAMPHILUS.

Cervina; thorax vittis fasciisque fuscis; alæ anticæ fasciis strigisque variis pallidioribus et nigro-fuscis; posticæ nigricantes maculis apud marginem exteriorum tribus trigonis pallide cervinis.

Sphinx Pamphilus, *Cram. Pap. Exot.* iv. 217, pl. 394, f. E.

Surinam.

Genus 31. DAREMMA.

Corpus sat gracile. Proboscis brevis, distincta. Antennæ setaceæ, serratæ, thorace paullo longiores. Abdomen thorace duplo longius. Pedes breviusculi, sat validi; tibiæ posticæ calcaribus quatuor longis. Alæ longæ, mediocriter latæ; anticæ vix acuminatæ, apud costam subconvexæ, margine exteriori integro subconvexo perobliquo; posticæ vix acuminatæ.

Body rather slender. Proboscis short, distinct. Antennæ setaceous, serrated, a little longer than the thorax. Abdomen tapering, full twice the length of the thorax. Legs rather short and stout; hind tibiæ with four long spurs. Wings long, moderately

broad. Fore wings very slightly convex in front, hardly acuminate, entire, slightly convex and very oblique along the exterior border. Hind wings hardly acuminate.

1. DAREMMA UNDULOSA.

Cinerea, subtus cana; thorax nigro bivittatus, fasciis duabus nigris testaceo marginatis fasciaque postica alba; abdomen vitta media maculisque lateralibus fuscis, necnon fasciis testaceis; alæ anticæ fasciis angustis undulatis nigricantibus, macula alba nigro marginata strigaeque apicali nigricante; posticæ fusco trifasciatæ.

Cinereous, hoary beneath. Thorax with a black testaceous-bordered band in front and another behind, where there is also a white band; a black stripe on each side. Abdomen with slight testaceous bands, with a brown stripe in the middle, and with brown spots along each side. Wings with white brown-spotted ciliæ. Fore wings with slender undulating blackish bands, three towards the base, and four beyond the middle, where there is a white blackish-bordered discal spot; a blackish apical streak. Hind wings with three brown bands. Length of the body 13 lines; of the wings 36 lines.

a. Orilla, West Canada. From Mr. Bush's collection.

Genus 32. ÆNOSANDA.

Mas. Corpus parvum, sat validum, subfusiforme. Caput subcristatum. Proboscis mediocriter longa. Palpi longiusculi, sat graciles; articulus 3us minutus, conicus, distinctus. Antennæ setaceæ, vix serratæ, thorace multo longiores. Abdomen thorace non duplo longius, apice subfasciculatum. Pedes sat graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ breviusculæ, mediocriter latæ; anticæ apud rotundatæ, margine exteriori subconvexo mediocriter obliquo.

Male. Size small. Body moderately stout, subfusiform. Head slightly crested. Proboscis moderately long. Palpi a little longer and more slender than in the other genera; third joint minute, conical, apparent. Antennæ setaceous, very minutely serrate, much longer than the thorax. Abdomen less than twice the length of the thorax, slightly tufted at the tip. Legs rather slender; hind tibiæ with four moderately long spurs. Wings rather short,

moderately broad. Fore wings rounded at the tips, moderately oblique and slightly convex along the exterior border; first, second and third inferior veins somewhat approximate; fourth remote.

1. *ÆNOSANDA NOCTUIFORMIS*.

Cana, subtus albida; capitis crista thoracisque vittæ duæ laterales fuscescentes; abdomen e guttis nigris univittatum; alæ anticæ fasciis nonnullis angustis undulosis aut angulosis, necnon striga maculaque apud angulum interiorem fuscis; posticæ fuscae, basi flavæ.

Hoary, whitish beneath. Head with a brownish crest. Thorax with a brownish stripe along each side. Abdomen with a black dot on each segment. Fore wings with several slender undulating or angular oblique dark brown bands, and with a transverse more distinct streak by the interior angle, near which there is a brown spot. Hind wings brown, yellow towards the base. Length of the body 6 lines; of the wings 14 lines.

a. St. Domingo. From Mr. Tweedie's collection.

Genus 33. *LAPARA*.

Mas. Corpus sat gracile. Caput parvum, breve. Proboscis mediocriter longa. Palpi brevissimi. Antennæ graciles, subclavatæ, thorace vix longiores, apice attenuatæ, vix hamatæ. Abdomen lineare, thorace duplo longius. Pedes graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ sat angustæ, non longæ; anticæ apud costam subrectæ, apice subrotundatæ, margine exteriori recto perobliquo, interiori recto; posticæ apice rotundatæ.

Male. Body rather slender. Head small, short. Proboscis moderately long. Palpi very short. Antennæ slender, subclavate, hardly longer than the thorax, and attenuated but hardly hooked towards the tips. Abdomen linear, full twice the length of the thorax. Legs slender; hind tibiæ with four moderately long spurs. Wings rather narrow, not long. Fore wings almost straight in front, slightly rounded at the tips, straight and very oblique along the exterior border; interior border straight; second inferior vein far nearer to the first than to the third; fourth very remote. Hind wings rounded at the tips.

This genus has much outward resemblance to the *Bombycidæ*.

1. LAPARA BOMBYCOIDES.

Cinerea; *alæ anticæ linea obliqua angulosa strigisque nonnullis lanceolatis*; *posticæ fuscescentes, basi pallidiores, ciliis albis.*

Cinereous. Fore wings with a zigzag oblique black line, and with several lanceolate black marks. Hind wings brownish, paler towards the base; ciliæ white. Length of the body 10 lines; of the wings 24 lines.

Canada. In Mr. Saunders' collection.

Genus 34. ACHERONTIA.

Corpus crassum. Proboscis brevis, distincta. Palpi validi, brevissimi. Antennæ subfiliformes, serratæ, thorace breviores. Abdomen thorace duplo longius. Pedes breves, crassi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longiusculæ, sat angustæ, margine exteriori integro; anticæ vix acuminatæ, apud costam subconvexæ, margine exteriori perobliquo vix convexo, margine interiori recto; posticæ apice rotundatæ.

Acherontia, Ochs.; Steph.; Curt.; Boisd.; Meig,

Acherontia, p., Hübn.

Sphinx, Linn., &c.

Brachyglossa, Boisd. olim.

Body thick. Head short, rounded in front. Proboscis short, distinct. Palpi stout, very short. Antennæ subfiliform, serrated, shorter than the thorax. Abdomen about twice the length of the thorax. Legs short, very stout; hind tibiæ with four moderately long spurs. Wings rather long and narrow; exterior border entire. Fore wings hardly acuminated, slightly convex in front, very oblique and very slightly convex along the exterior border; interior border straight; inferior veins much as usual. Hind wings rounded at the tips.

Europe.

1. ACHERONTIA ATROPOS.

Cinereo-nigra; *antennæ apice albæ*; *thoracis discus cervinus, cinereo varius*; *abdomen fasciis nigris maculisque lateralibus luteis*; *alæ anticæ fasciis undulosis nigris, strigis nonnullis guttaque discali cervinis aut albidis*; *posticæ luteæ vittis, duabus nigris.*

- , *Oth. It.* 89. *Albin, Nat. Hist. Engl. Ins.* pl. 6.
Röes. Ins. Bel. iii. 5, pl. 1, 2. *Réaum. Ins.* i. pl. 14; ii. pl. 24. *Act. Bresl. Sect.* 13, 37. *Wilk. Pap.* 9, pl. 1, B, 1.
Geoff. Ins. Par. ii. 85, 8. *Sulz. Ins.* 36, pl. 15, f. 88. *Schæff. Icon.* pl. 99, f. 1, 2. *Deg. Ins.* ii. 1, 174. *Engr. Pap. d'Eur.* iii. 80, pl. 105, 106, f. 154.
- Sphinx Atropos, *Linn. Amoen. Acad.* iii. 321; *Mus. Lud. Ulr.* 348, 8; *Syst. Nat.* i. 2, 799, 9. *Scop. Ent. Carn.* 184, 469. *Fabr. Sp. Ins.* ii. 144, 23; *Mant. Ins.* ii. 95, 26; *Ent. Syst.* iii. 1, 364, 27. *Hasselq. It.* 417, 404, 405. *Cram. Pap. Exot.* i. 123, pl. 78, f. A. *Esp. Schmett.* ii. pl. 7. *Hybner, Fuessl. Archiv. Ins.* i. 1. *Mein. Naturf.* 13, 176; 16, 73; 20, 173. *Gmel. ed. Syst. Nat.* i. 5, 2378, 9. *Hübner. Sphing.* 98, 2, pl. 13, f. 68; *Larv. Lep.* ii. *Sphing.* iii. *Leg. C, a, f. 1, a, b.* *Wien. Verz.* 41, 4. *Illig. N. Ausg. dess.* i. 11, 4. *Poda, Ins.* 81, 6. *Schæff. Icon. Nom. Panz.* 109. *Panz. Faun. Germ.* 8, 16. *Bork. Eur. Schmett.* ii. 881, 142; 180, 10; *Rhein Mag.* i. 318, 147. *Hübner. Berl. Mag.* ii. 2, 176, 1; 190. *Naturf.* ix. 93; xiii. 176; xvi. 73; xvii. 196, pl. 4, f. 25; xx. 173; xxi. 66; xxiv. 97. *Fuessl. Schw. Ins.* 32, 616; *Archiv.* i. *Rossi, Faun. Etr.* ii. 161, 1050; *Ed. Illig.* 255, 1050; *Mant. Ins.* 13, 358. *Vieweg, Tab. Verz.* i. 5, 5. *Schrank, Faun. Boic.* ii. 1, 224, 1387. *Lang. Verz.* ii. 67, 551, 552. *Schwarz, Raup.* 500, 638. *Ochs. Schmett. von Eur.* ii. 231, 1. *God. Hist. Nat. Léop. Fr.* iii. 16, pl. 14.
- Acherontia Atropos, *Ochs. Hübner. Verz. Schmett.* 139, 1494. *Curt. Brit. Ent.* iv. pl. 147. *Meig. Syst. Besch. Schmett. Eur.* ii. 146, 1, pl. 67, f. 4; *Handb.* 98, 13, pl. 10, f. 1. *Steph. Ill. Brit. Ent. Haust.* i. 114, 1; *Cat. Brit. Lep.* 27. *Boisd. Ind. Méth.* 49, 395.
- Acherontia Styx, *Westw. Cab. Orient. Ent.* 88, pl. 42, f. 3.
- Surinam.
- a. England. Presented by Mrs. C. Cooper.
b—h. England. From Mr. Stephens' collection.
i, l. England.
m. Europe. From M. Becker's collection.
n. France.
o. Sierra Leone. Presented by the Rev. D. F. Morgan.
p—s. Hong Kong. Presented by J. C. Bowring, Esq.
t. Hong Kong. Presented by Colonel Champion.
v, u. Philippine Isles. Presented by J. C. Bowring, Esq.
w—z. North India. From Mr. James' collection.

aa. China.

bb. South Africa. Presented by Dr. A. Smith.

cc. Zoolu Country. Presented by G. F. Angas, Esq.

dd—ff. Turkey in Asia. Presented by W. K. Loftus, Esq.

gg. ———?

Asia.

2. ACHERONTIA LETHE.

Nigro-fusca ; *caput ferruginosum* ; *thorax vittis duabus cyanescen-*
tibus, disco albido aut testaceo lituris nigris, postice strigis
transversis rufis et cyaneis ; *abdomen nigrum, maculis trans-*
versis dorsalibus cyanescentibus maculisque transversis laterali-
bus longioribus luteis ; *alæ anticæ ferrugineo-fuscae, fasciis*
variis undulatis nigris, lituris nonnullis cervinis, gutta discali
fasciaque exteriori albidis ; *posticæ nigricantes fasciis duabus,*
maculis nonnullis marginalibus costaque luteis.

Sphinx Atropos, var., Cram. Pap. Exot. iii. 74, pl. 237, f. A.

Acherontia Morta, Hübn. Verz. Schmett. 140, 1496.

Acherontia Lethe, Westw. Cab. Orient. Ent. 87, pl. 42, f. 2.

Acherontia Satanas, Boisd. Hist. Nat. Lep. pl. 16, f. 1.

Blackish brown or dark brown. Head somewhat ferruginous. Antennæ with whitish tips. Thorax with a bluish stripe on each side ; disk whitish or testaceous, with black marks, its hind part with red and blue transverse streaks. Abdomen black, with bluish transverse dorsal spots, and with more elongated transverse luteous spots along each side. Fore wings ferruginous-brown, with various undulating black bands, with some fawn-coloured marks, with a whitish discal dot and a whitish exterior band. Hind wings blackish, with two luteous bands, and some luteous spots along the exterior border ; costa luteous. Length of the body 20—23 lines ; of the wings 44—54 lines.

Java.

a. East Indies. From Archdeacon Clerk's collection.

b. Assam. From Mr. Warwick's collection.

c. Ceylon. From the Rev. J. Wenham's collection.

d. Ceylon. Presented by R. Templeton, Esq.

e. Silhet. From Mr. Sowerby's collection.

f. Silhet. Presented by J. C. Dale, Esq.

Genus 35. BASIANA.

Corpus crassum. Caput breve, non conicum. Proboscis brevis, distincta. Palpi breves, validi, arcte applicati. Antennæ setaceæ, thorace paullo longiores. Abdomen thorace duplo longius. Pedes validi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longæ, mediocriter latæ; anticæ apud costam vix convexæ, subacuminatæ, apud marginem anteriorem subrectæ mediocriter obliquæ; posticæ apice rotundatæ, margine anteriore integro subrecto. *Mas.*—Antennæ serratæ, pubescentes. *Fæm.*—Antennæ graciliores, vix serratæ.

Body very stout. Head short, not conical. Proboscis short, distinct. Palpi short, stout, closely applied to the head. Antennæ setaceous, a little longer than the thorax. Abdomen full twice the length of the thorax. Legs stout; hind tibiæ with four moderately long spurs. Wings long, moderately broad. Fore wings hardly convex in front, slightly acuminate, moderately oblique and almost straight along the exterior border; interior border slightly concave towards the interior angle; veins as usual. Hind wings rounded at the tips, entire and almost straight along the exterior border. *Male.*—Antennæ serrate, pubescent. *Female.*—Antennæ more slender, hardly serrate.

1. BASIANA DEUCALION.

Cervina, subtus testacea; caput antice nigricans; abdominis latera testacea; alæ anticæ fusco-cervinæ, subpurpurascens, fasciis nonnullis undulatis obliquis fuscis; posticæ subfasciatæ, basi nigræ.

Smerinthus Deucalion, MSS.

Fawn-colour, testaceous beneath. Head blackish on each side in front. Abdomen testaceous on each side. Fore wings brownish fawn-colour, with purplish reflections, and with several undulating oblique brown bands, which are continued more slightly across the hind wings; the latter are black at the base. Length of the body 15 lines; of the wings 44 lines.

a. North India. Presented by Mrs. Mauger.

2. BASIANA CERVINA.

Mas. *Pallide cervina; caput fascia antica cinereo-fusca; alæ anticæ fasciis paucis undulatis, disco ex parte plagaque apicali obscurioribus; posticæ rufescentes, antice et apud angulum anteriorem testaceæ.*

Male and female. Pale fawn-colour. Head with a cinereous-brown band in front of the antennæ, which are white. Fore wings with a few darker undulating bands, and with part of the disk and a patch at the tip of the costa of the same hue. Hind wings reddish, testaceous in front and along the interior border, and with testaceous ciliæ. Length of the body 16—20 lines; of the wings 40—56 lines.

a—c. North India. From Mr. Stevens' collection.

3. BASIANA POSTICA.

Testacea; antennæ fulvæ; caput et thorax linea nigricante; abdomen macula basali nigricante, disco cervino; pedes ferruginei; alæ anticæ macula basali nigra; posticæ luteæ, plaga basali vittaque externa angusta subundulata nigris.

Testaceous. Antennæ tawny. Head and thorax with a blackish line. Abdomen mostly fawn-colour on the disk, and with a blackish spot at the base. Hind wings luteous, with a black patch at the base, and with a slender undulating black stripe near the exterior border. Length of the body 12 lines; of the wings 32 lines.

a. Port Natal. From M. Gueinzus' collection.

"Gives out sounds, resembling those of a *Lamia*, for minutes together."—MSS.

Cenus 36. DAPHNUSA.

Corpus robustum. Proboscis obsoleta. Palpi breves, validi, recurvi. Abdomen oblanceolatum, thorace plus duplo longius. Pedes validi, pilosi, breviusculi; tibiæ posticæ non calcaratæ. Alæ mediocriter latæ, non longæ; anticæ apud costam subrectæ, vix acuminatæ, apud marginem anteriorem subrectæ, mediocriter obliquæ; postico apice rotundatæ, margine anteriore integro.

Body stout. Proboscis obsolete. Palpi short, stout, recurved on the head, which thereby has a conical appearance. Antennæ wanting. Abdomen oblanceolate, rather more than twice the length of the thorax. Legs stout, pilose, rather short; hind tibiæ with no apparent spurs. Wings moderately broad, not long. Fore wings nearly straight in front, hardly acuminate, almost straight and moderately oblique along the exterior border; interior border slightly concave towards the interior angle; inferior veins much as usual. Hind wings rounded at the tips, entire and even along the exterior border.

1. DAPHNUSA OCELLARIS.

Mas. *Cinerea, subtus rufescens; thorax fascia antica cervina; abdomen fasciis interruptis fuscis maculisque intermediis obscurioribus; alæ anticæ lineis nonnullis transversis undulosis, fascia ante basali obscuriore, necnon macula flava strigaeque testacea apud angulum interiorem; posticæ cinereo-fuscæ, fasciis duabus obscurioribus strigisque apud venas rufescentibus.*

Male. Cinereous, mostly red beneath. Thorax with a fawn-coloured band in front. Abdomen with interrupted brown bands, and with a row of intermediate darker brown spots. Fore wings with some undulating transverse brown lines, with a darker brown band near the base, and with a large yellow spot, accompanied by a testaceous streak, near the interior angle. Hind wings cinereous-brown, with two indistinct darker bands, and with reddish streaks on the veins. Length of the body 15 lines; of the wings 34 lines.

a. Borneo. From Mr. Horsburgh's collection.

2. DAPHNUSA COLLIGATA.

Mas. *Cervina; thorax maculis duabus lateralibus fuscis; postice pallidior; alæ anticæ disco ex parte cinereo, apud costam albidæ, vitta discali fusca, fascia exterior obliqua arcuata albida, macula apicali fusca guttaque argenteo discali; posticæ fuscæ, apud angulum interiorem pallidiores striga obscure fusca, margine exterior cervino.*

Male. Fawn-colour. Thorax with a brown spot on each side by the fore wing; hind part paler. Fore wings partly cinereous in

the disk, whitish along the costa, with a brown discal stripe, with an exterior oblique curved whitish band, with a brown apical spot, and with a silvery white discal dot. Hind wings brownish, paler and with a dark brown streak by the interior angle, fawn-colour along the exterior border. Length of the body 16 lines; of the wings 34 lines.

a. North China. From Mr. Stevens' collection.

Genus 37. SMERINTHUS.

Corpus robustum. Caput mediocre aut parvum. Proboscis brevissima aut nulla. Palpi breves aut brevissimi. Antennæ setaceæ. Abdomen mediocriter longum. Alæ anticæ margine exteriori dentato aut inciso.

Smerinthus, *Latr. Hist. Nat. Ins.* iii. 401; *Curt.*; *Steph.*; *Boisd.*

Sphinx, p., *Linn.*, &c.

Merinthus, *Meigen*.

Paonias, *Mimas*, et *Polyptychus*, *Hübner. Verz. Schmett.* 141, 142.

Colax? *Hübner. Verz. Schmett.* 141.

Body robust. Head small or of moderate size. Proboscis very short or none. Palpi short or very short. Antennæ setaceous. Abdomen moderately long. Fore wings with the exterior margin dentate or excavated.

Europe.

Group 1.

Proboscis distincta, brevissima. Antennæ thorace longiores. Pedes breves, validi; tibiæ posticæ calcaribus quatuor abbreviatis. Alæ mediocriter longæ et latæ; anticæ acuminatæ, vix falcatae, apud costam subrectæ, margine exteriori mediocriter obliquo concavo subangulato; posticæ subtruncatæ, subrotundatæ.

Proboscis distinct, very short. Antennæ longer than the thorax. Legs short, stout; hind tibiæ with four short spurs. Wings moderately long and broad. Fore wings acuminate, hardly falcate, nearly straight in front; exterior border moderately oblique, slightly concave for near three-fourths of its length, when it forms a very obtuse angle, and is slightly concave from thence to the interior angle; interior border slightly concave towards the tip. Hind wings with the costa slightly convex towards the tip, which is somewhat truncated and rounded.

1. SMERINTHUS OCELLATUS.

Roseo-cinereus ; thoracis discus obscure fuscus ; alæ anticæ lineis undulatis transversis cinereis, striga marginali plagaque postica fuscis, fasciis duabus obliquis anticis obscurioribus, macula exteriori nigricante ; posticæ roseæ, cervino marginatæ, antice cinereæ, ocello magno nigro, annulo interiore cyaneo exteriori atro.

- , *Mouff. Ins.* 91, f. 3. *Jonst. Ins.* pl. 8, f. 30. *Goëd. Ins.* iii. 25, pl. 10. *List. ed. Goëd.* 68, f. 24. *Albin. Ins.* 8, f. 11. *Rai, Ins.* 48, 2 ; 149, 3 ; 361, 58. *Merian, Ins. Eur.* ii. pl. 87. *Röes. Ins. Bel.* i. *Phal.* i. 1, pl. 1, f. 1—4 ; iii. 233, pl. 38, f. 4. *Geoff. Ins. Par.* ii. 79, 1. *Uddm. Diss.* 58, f. 11. *Gron. Zooph.* 816. *Poda, Ins.* 80, 2. *Wilk. Pap.* 10, pl. 1, B, 5. *Harr. Ins.* ii. pl. 5, f. a—h. *Ammir. Ins.* pl. 1. *Leche, Nov. Ins. Sp.* 58, f. 8. *Schæff. Icon.* pl. 99, f. 5, 6. *Drury, Ins.* ii. 43, pl. 25, f. 2, 3. *Sepp, Ins.* iii. 11, pl. 2. *Deg. Ins.* ii. 1, 175, 176, pl. 3, f. 3. *Sepp. Ins.* i. 1, pl. 2. *Engr. Pap. d'Eur.* iii. 114, pl. 119, f. 164.
- Sphinx ocellata*, *Linn. Syst. Nat.* i. 2, 11, 796, 1 ; *Faun. Suec.* 286, 1083 ; *Mus. Lud. Ulr.* 341, 1. *Scop. Ent. Carn.* 182, 465. *Esp. Schmett.* ii. 27, pl. 1. *Fabr. Sp. Ins.* ii. 139, 1 ; *Mant. Ins.* ii. 92, 1 ; *Ent. Syst.* iii. 1, 355, 1. *Gmel. ed. Syst. Nat.* i. 5, 2371, 1. *Wien. Verz.* 41, 1. *Illig. N. Ausg. dess.* i. 5, 1. *Poda, Ins.* 80, 2. *Schæff. Icon. Nom. Panz.* 110. *Petagna, Inst. Ent.* ii. 495, 1, pl. 8, f. 1. *Sulz. Ins.* 36, pl. 15, f. 89. *Bork. Eur. Schmett.* ii. 104, 148, 181, 1 ; *Rhein. Mag.* i. 325, 149. *Müll. Zool. Dan.* 116, 1334 ; *Faun. Fridr.* 37, 341. *Hüfn. Berl. Mag.* ii. 2, 178, 4. *Fuessl. Schw. Ins.* 32, 611 ; *A. Mag.* i. 2, 262 ; *N. Mag.* ii. 69 ; iii. 148. *Rossi, Faun. Etr.* ii. 159, 1046 ; *Ed. Illig.* 253, 1046. *Vieweg, Tab. Verz.* i. 3, 1. *Schrank, Faun. Boic.* ii. 1, 221, 221, 1380. *Lang. Verz.* ii. 64, 533—535. *Brahm, Ins. Kal.* 430, 301. *Schwarz, Raup.* 52, 194, 350, 493, 629. *Donov. Nat. Hist. Brit. Ins.* xiv. pl. 469. *Ochs. Schmett.* ii. 249, 2.
- Sphinx Salicis*, *Hübner. Sphing.* 99, 1, pl. 15, f. 73 ; *Larv. Lep.* ii. *Sphing.* iii. *Leg. D.* a, f. 2.
- Paonias Salicis*, *Hübner. Verz. Schmett.* 142, 1519.
- Merinthus ocellatus*, *Syst. Besch. Eur. Schmett.* ii. 148, 1, pl. 78, f. 1 ; *Handb.* 102, 20.
- Smerinthus ocellatus*, *God. Hist. Nat. Lép. Fr.* i. 68, pl. 20, f. 2. *Steph. Ill. Brit. Ent. Haust.* i. 112, 1 ; *Cat. Brit. Lep.* 26, 1. *Boisd. Ind. Méth.* 49, 397. *Westw. & Humph. Brit. Moths*, i. 7, pl. 1, f. 1, 3.

a. England. Presented by H. Doubleday, Esq.

b—g. England.

h—t. England. From Mr. Stephens' collection.

v. England. From Mr. Foxcroft's collection.

u. England.

w—y. Europe. From M. Becker's collection.

Group 2.

Proboscis distincta, brevissima. Palpi breves, pilosi. Pedes breviusculi, sat validi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ mediocriter longæ, sat angustæ; anticæ subacuminatæ, apud costam rectæ, margine exteriori sat obliquo, incisuris duabus; posticæ apice rotundatæ, non dilatatæ, margine exteriori apud angulum interiorem subexcavato. *Mas.*—Antennæ serratæ, thorace paullo longiores.

Proboscis distinct, very short. Palpi short, pilose. Legs rather short and stout; hind tibiæ with four moderately long spurs. Wings moderately long, rather narrow. Fore wings slightly acuminate, straight in front; exterior border rather oblique, with two excavations; interior border very slightly concave towards the interior angle. Hind wings rounded at the tips, not convex in front; exterior border slightly excavated towards the interior angle. *Male.*—Antennæ serrated, a little longer than the thorax.

2. SMERINTHUS TILIÆ.

Canescens; caput et thorax viridia, hujus discus posticus canescens; alæ anticæ margine exteriori fasciæque angulata saturatione viridibus, plaga costali subapicali albida; posticæ subcervinæ, fasciæ fusca.

Var. *Cervina fasciis obscurioribus.*

———, *Albin*, *Ins.* pl. 10. *Röes*, *Ins.* *Bel.* i. *Phal.* i. 9, pl. 2, f. 1—7. *Merian*, *Ins.* *Eur.* ii. pl. 24. *Wilk.* *Pap.* 10, pl. 1, R, 4. *Geoffr.* *Ins.* *Par.* ii. pl. 80, 2. *Schæff.* *Icon.* pl. 100, f. 1, 2; pl. 203, f. 3; *Elem.* pl. 116, f. 1; *Icon.* pl. 100, f. 1, 2. *Deg.* *Ins.* ii. 1, 177, pl. 3, f. 1—7. *Frisch*, *Ins.* vii. 3, pl. 2, f. 1—4. *Sepp.* *Ins.* i. 1, pl. 6. *Engr.* *Pap. d'Eur.* iii. 109, pl. 116, 3—18, f. 163.

Sphinx Tiliæ, *Linn. Syst. Nat.* i. 2, 797, 3; *Faun. Suec.* 287, 1085. *Mus. Lud. Ulr.* 343, 3. *Scop. Ent. Carn.* 183, 467. *Fabr. Sp. Ins.* ii. 141, 9; *Mant. Ins.* ii. 93, 9. *Ent. Syst.* iii. 1, 358, 10. *Esp. Schmett.* ii. 38, pl. 3, f. 1—5, 177; pl. 22, f. 3. *Gmel. ed. Syst. Nat.* i. 5, 2373, 3. *Hübner. Sphing.* 100, 4, pl. 15, f. 72; *Larv. Lep.* ii. *Sph.* iii. *Leg.* D, b, f. 2, a. *Wien. Verz. N. Ausg. dess.* i. 7, 3. *Poda, Ins.* 79, 1. *Borh. Eur. Schmett.* ii. 110, 152, 183, 4; *Rhein. Mag.* i. 324, 148. *Hüfn. Berl. Mag.* ii. 2, 188, 20; 195. *Fuessl. Schw. Ins.* 32, 613; *A. Mag.* i. 2, 264; *N. Mag.* iii. 143. *Rossi, Faun. Etr.* ii. 160, 1048; *Ed. Illig.* 254, 1048. *Vieweg, Tab. Verz.* i. 4, 3. *Schr. Faun. Boic.* ii. 1, 222, 1382. *Lang. Verz.* i. 4, 3. *Brahm, Ins. Kal.* 420, 296. *Schwarz, Raup.* 194, 350, 495, 635. *Ochs. Schmett. von Eur.* ii. 246, 1. *Donov. Brit. Ins.* x. pl. 325.

Mimas Tiliæ, *Hübner. Verz. Schmett.* 142, 1522.

Smerinthus Tiliæ, *God. Hist. Nat. Léop. Fr.* iii. 64, pl. 20, f. 1. *Steph. Ill. Brit. Ent. Haust.* i. 113, 3; *Cat. Brit. Léop.* 26, 3. *Boisd. Ind. Méth.* 49, 396. *Westw. & H. Brit. Moths*, i. 8, pl. 1, f. 7—9.

Merinthus Tiliæ, *Meig. Syst. Besch. Eur. Schmett.* ii. 149, 2, pl. 78, f. 2; *Handb.* 101, 18.

a—t. England. From Mr. Stephens' collection.

v. England. From Mr. Foxcroft's collection.

u—gg. England.

hh, ii. Europe. From Mr. Becker's collection.

jj. France.

kk. Sierra Leone. Presented by the Rev. D. F. Morgan.

Group 3.

Proboscis distincta, brevissima. Palpi breviusculi, ascendentes; articulus 3us brevissimus. Pedes breves, validi; tibiæ posticæ calcaribus quatuor abbreviatis. Alæ latæ, non longæ; anticæ vix acuminatæ, apud costam rectæ, margine exteriori subobliquo vix undulato subdenticulato; posticæ truncatæ, apud costæ apicem dilatatæ, margine exteriori mediocriter denticulato. *Mas.*—Antennæ subpectinatæ.

Body moderately stout. Proboscis distinct, very short. Palpi rather short, ascending towards the vertex; third joint very short. Antennæ setaceous. Legs short, stout; hind tibiæ with four short spurs. Wings broad, not long. Fore wings hardly acuminate,

straight along the costa; exterior border slightly oblique, hardly undulating, slightly denticulated; interior border very slightly concave towards the interior angle. Hind wings very convex on the costa towards the tip, which is truncated; exterior border moderately denticulated. *Male*.—Antennæ slightly pectinated.

3. SMERINTHUS POPULI.

Pallide cinereus; alæ lineis transversis undulatis fasciisque fuscis, maculis ciliaribus albis; anticæ litura discali alba; posticæ basi rufo-ferrugineæ.

———, *Albin, Ins. pl. 37, f. C. Merian, Ins. Eur. iii. pl. 37. Röes. Ins. iii. 187, pl. 30. Wilk. Pap. ii. pl. B, C. Ammir. Ins. pl. 10. Geoffr. Ins. Par. ii. pl. 81, f. 3. Deg. Ins. i. 113, pl. 8, f. 5; ii. 1, 175. Schæff. Icon. pl. 100, f. 5, 6. Sepp. Ins. i. 1, 3, pl. 1. Engr. Pap. d'Eur. iii. 106, pl. 114, 116, f. 162.*

Sphinx Populi, Linn. Syst. Nat. i. 2, 797, 2; Faun. Suec. 286, 1084; Mus. Lud. Ulr. 342, 2. Cram. Pap. Exot. iv. 230, pl. 398, f. A. Scop. Ent. Carn. 183, 466. Fabr. Sp. Ins. ii. 141, 8; Mant. Ins. ii. 93, 8; Ent. Syst. iii. 1, 357, 9. Esp. Schmett. ii. 34, pl. 2, 177; pl. 22, f. 2; pl. 36, f. 10. Gmel. ed. Syst. Nat. i. 5, 2372, 2. Hübn. Sphing. 99, 2, pl. 15, f. 74; Larv. Lep. ii. Sphing. iii. Leg. D, a, f. 1. Wien. Verz. 41, 4. Illig. N. Ausg. dess. i. 7, 4. Schæff. Icon. Nom. Panz. 110. Bork. Eur. Schmett. ii. 106, 150, 181, 2; Rhein. Mag. i. 325, 150, 649, 2. Müll. Zool. Dan. 116, 1335; Faun. Fridr. 37, 342. Hüfn. Tab. Berl. Mag. ii. 2, 178, 6. Fuessl. Schw. Ins. 32, 612; A. Mag. i. 2, 263; N. Mag. iii. 147, 154, 162, 163. Rossi, Faun. Etr. ii. 160, 1047; Ed. Illig. 254, 1047. Vieweg, Tab. Verz. 3, 2. Schr. Faun. Boic. ii. 1, 222, 1383. Lang. Verz. ii. 64, 536, 537. Brahm, Ins. Kal. 312, 198. Schwarz, Raup. 630, 748. Ochs. Schmett. von Eur. ii. 252, 3. Donovan. Brit. Ent. viii. pl. 241.

Polyptychus Populi, Hübn. Verz. Schmett. 141, 1517.

Smerinthus Populi, God. Hist. Nat. Lép. Fr. iii. 71, pl. 20, f. 3. Steph. Ill. Brit. Ent. Haust. i. 112, 2; Cat. Brit. Lep. 262. Boisd. Ind. Méth. 49, 398. Westw. & H. Brit. Moths, i. 8, pl. 1, f. 4—6.

Merinthus Populi, *Meig. Syst. Besch. Eur. Schmett.* ii. 150, 3, pl. 78, f. 3, 4; *Handb.* 101, 19.

Var.? *Smerinthus Tremulæ*, *Fischer, Oryctogr. Mosc.* pl. 10, f. 3, *Treits. Suppl.* x. 140. *Dup. Hist. Nat. Lép. Fr. Suppl.* ii. 29, pl. 2, f. 2. *Boisd. Ind. Méth.* 49, 399.

Moscow.

a—t. England. From Mr. Stephens' collection

v. England. From Mr. Foxcroft's collection.

u—z. England.

aa, bb. Europe. From M. Becker's collection.

Group 4.

Proboscis obsoleta. Palpi brevissimi. Pedes breves, validi; tibiæ posticæ calcaribus quatuor abbreviatis. Alæ mediocriter longæ latæque; anticæ non acuminatæ, apud costam subrectæ, margine exteriori mediocriter obliquo valde denticulato; posticæ apice rotundatæ, apud costam non dilatatæ, margine exteriori subdenticulato. Mas.—Antennæ subpectinatæ, thorace multo longiores. Fæm.—Antennæ simplices, thorace paullo longiores.

Proboscis obsolete. Palpi very short. Legs short, stout; hind tibiæ with four short spurs. Wings moderately long and broad. Fore wings not acuminate, nearly straight in front; exterior border moderately oblique, strongly denticulated, and especially so at a little in front of the middle; interior border very slightly concave towards the interior angle. Hind wings not convex towards the tip of the costa, rounded at the tips, slightly denticulated along the exterior border. Male.—Antennæ slightly pectinated, much longer than the thorax. Female.—Antennæ simple, a little longer than the thorax.

4. SMERINTHUS QUERCUS.

Albido-cervinus; alæ anticæ lineis transversis fasciisque anticis strigæ apud angulum interiorem obscurioribus; posticæ cervinæ, apud angulum interiorem pallidiores fuscoque notatæ.

———, *Engr. Pap. d'Eur.* iii. 117, pl. 120, f. 165; 125, pl. 122, f. 165.

Sphinx Quercus, *Fabr. Sp. Ins.* ii. 140, 3; *Mant. Ins.* ii. 92, 3; *Ent. Syst.* iii. 1, 356, 3. *Wien. Verz. Schmett.* 41, pl. 1, a, f. 1, a, 1, b; pl. 1, b, f. 1. *Esp. Schmett.* ii. 164, pl. 19; pl. 26, f. 1. *Gmel. ed. Syst. Nat.* i. 5, 2372, 48. *Hübner. Sphing.* 99,

3. pl. 15, f. 71; *Larv. Lep.* ii. *Sphing.* iii. *Leg. D.* b, f. 1, a, b. *Wien. Verz.* 41, 2, pl. 1, f. 1. *Illig. N. Ausg. dess.* i. 6, 2. *DeVill. Ent. Lin.* ii. 87, pl. 4, f. 15. *Bork. Eur. Schmett.* ii. 108, 151, 183, 3. *Fuessl. A. Mag.* i. 104. *Schr. Faun. Boic.* ii. 1, 221, 1381. *Lang. Verz.* ii. 65, 538. *Schwarz, Raup.* 203, 363, 508. *Ochs. Schmett. von Eur.* ii. 255, 4.
- Polyptychus Quercus*, *Hübner. Verz. Schmett.* 141, 1518.
- Smerinthus Quercus*, *God. Hist. Nat. Léop. Fr.* iii. 181, pl. 17, f. 3. *Boisd. Ind. Méth.* 49, 400.
- Merinthus Quercus*, *Meig. Syst. Besch. Eur. Schmett.* ii. 150, 4, pl. 78, f. 5; *Handb.* 100, 17, pl. 9, f. 8.
- a, b. Europe. From M. Becker's collection.

North America.

Group 1.

Structure of *S. ocellatus*.

5. SMERINTHUS MYOPS.

Cinereo-ferrugineus; *antennæ albidæ*; *palpi supra, thoracis vitta, pectoris discus et abdomen lutea*; *alæ anticæ lineis transversis undulosis obscurioribus, basi lutescentes*; *posticæ luteæ, fusco marginatæ, ocello cyaneo nigro-cincto*.

Sphinx Myops, *Abbot & Smith, Nat. Hist. Lep. Ins. Georg.* i. 51, pl. 26.

Smerinthus Rosacearum, *Boisd.*

Smerinthus Myops, *Harris, Amer. Journ. Sci.* xxxvi. 291, 3.

Paonias Myops, *Hübner. Verz. Schmett.* 142, 1520.

a. United States. Presented by E. Doubleday, Esq.

6. SMERINTHUS ASTYLUS.

Subroseus; *thorax vitta lata antice attenuata ferruginea*; *abdomen cervinum*; *alæ anticæ apices versus ferrugineæ vitta strigisque anticis glaucescentibus*; *posticæ lutescentes ocello nigro-cyaneo, apices versus cervinæ*.

Sphinx Astylus, *Drury, Exot. Ins.* ii. 45, pl. 26, f. 2.

Smerinthus integerrima, *Harris, Amer. Journ. Sci.* xxxvi. 290, 2.

Sphinx Io, *Boisd. Guér. Icon. Règn. Anim. Ins.* pl. 84.

New York.

7. SMERINTHUS GEMINATUS.

Cinereus ; *thoracis discus obscure fuscus* ; *abdomen pallide fuscum* ; *alæ anticæ pallide roseo-cinereæ, gutta discali pallidiore, apud marginem exteriorem fusca fasciis nonnullis undulatis pallide fuscis, macula apud angulum lineisque duabus transversis obscure fuscis, striga intermedia fusca* ; *posticæ roseæ, ocello gemino cyaneo nigro marginato.*

Sphinx geminata, Say.

Smerinthus geminata, Harris, Amer. Journ. Sci. xxxvi. 291, 4.

Sphinx ocellatus Jamaicensis, Drury, Exot. Ins. ii. 43, pl. 25, f. 2, 3.

Smerinthus Cerisii, Kirby, Faun. Bor. Amer. iv. 301, pl. 4, f. 4.

Cinereous. Disk of the thorax dark brown. Abdomen pale brown. Fore wings pale rosy cinereous, with a paler discal dot, brown along the exterior border, with several pale brown undulating bands, with a dark brown spot by the interior angle, and with two dark brown transverse lines ; the interior line angular, and joined at its angle with the other by a brown streak. Hind wings rosy, paler along the exterior border, with a large double blue black-bordered ocellus. Length of the body 12 lines ; of the wings 28 lines.

Jamaica.

a. United States. Presented by E. Doubleday, Esq.

b. Orilla, West Canada. From Mr. Bush's collection.

Group 2.

Alæ anticæ apud marginem exteriorem valde denticulatæ, margine interiore apicem versus excavato ; *posticæ truncatæ, apud costæ apicem dilatatæ, margine exteriori subdenticulato.*

Fore wings deeply denticulated along the exterior border ; interior border very concave towards its tip. Hind wings with the costa very convex near the tips, which are truncated ; exterior border very slightly denticulated.

8. SMERINTHUS EXCÆCATUS.

Pallide cervinus ; *thorax vitta ferruginea* ; *abdomen linea fusca* ; *alæ anticæ fasciis lineisque transversis undulosis ferruginosis, gutta discali fusca* ; *posticæ roseæ, apud margines cervinæ, ocello cyaneo nigro-cincto.*

Sphinx excæcata, Abbot & Smith, *Nat. Hist. Lep. Ins. Georg.* 49, pl. 25.

Smerinthus excæcata, Harris, *Amer. Journ. Sci.* xxxvi. 290, 1.

Paonias excæcatus, Hübn. *Verz. Schmett.* 142, 1521.

a—c. Trenton Falls, New York. Presented by E. Doubleday, Esq.

d. Canada. Presented by Dr. Barnston.

e. Orilla, West Canada. From Mr. Bush's collection.

Group 3.

Corpus sat validum. Proboscis distincta, brevissima. Palpi mediocriter longi, ascendentes; articulus 3us conicus, brevissimus. Antennæ setaceæ. Pedes breves, validi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ latæ, non longæ, margine exteriore subdenticulato; anticæ vix acuminatæ; posticæ apud apices rotundatæ subtruncatæ. *Mas.*—Antennæ pectinatæ, thorace paullo longiores. Alæ anticæ apud marginem anteriorem subobliquæ. *Fæm.*—Antennæ simplices, thorace non longiores. Alæ anticæ apud marginem anteriorem sat obliquæ.

Body moderately stout. Proboscis distinct, very short. Palpi moderately long, ascending to the vertex; third joint conical, very short. Antennæ setaceous. Legs short, stout; hind tibiæ with four moderately long spurs. Wings broad, not long, a little broader in the male than in the female; exterior border slightly denticulated. Fore wings hardly acuminate. Hind wings rounded and somewhat truncated at the tips. *Male.*—Antennæ pectinated, a little longer than the thorax; branches in pairs. Fore wings slightly oblique along the exterior border. *Female.*—Antennæ simple, not longer than the thorax. Fore wings moderately oblique along the exterior border.

9. SMERINTHUS JUGLANDIS.

Cinerascens aut pallide cervinus; alæ lineis transversis obliquis undulatis fasciisque obscurioribus, anticæ gutta discali fusca.

Mas.—*Alæ anticæ plaga postica subquadrata fusca.*

Sphinx Juglandis, Abbot & Smith, *Nat. Hist. Lep. Ins. Georg.* i. 57, pl. 29.

Amorpha dentata Juglandis, Hübn. *Samml. Exot. Schmett.* i. *Lep.*

ii. *Sphing.* iii. *Legit.* iv. *Amorph. B. Dentatæ*, b, f. 1—4.

Polyptychus Juglandis, *Hübner. Verz. Schmett.* 141, 1513.

Smerinthus Juglandis, *Harris, Amer. Journ. Sci.* xxxvi. 292, 5.

a—c. Trenton Falls, New York. Presented by E. Doubleday, Esq.

d. St. John's Bluff, Florida. Presented by E. Doubleday, Esq.

e, f. Orilla, West Canada. From Mr. Bush's collection.

g. ———? From Mr. Milne's collection.

h. ———?

Group — ?

10. SMERINTHUS MODESTUS.

“*Olivaceo-ochraceus; caput parvum, non cristatum; alæ anticæ crenatæ, striga flexuosa transversa basali virguloque stigmatali pallidis, fascia lata undulata media, strigisque duabus crenatis posterioribus, saturate olivaceis; posticæ medio basi- que purpureæ, macula transversa nigra fasciæque abbreviata fusca prope angulum analem sitis.*”

Smerinthus modesta, *Harris, Cat. North American Sphinges, Amer. Journ. Sci.* xxxvi. 292; *Lake Superior, &c.*, 388, pl. 7, f. 7.

Massachusetts. Lake Superior.

Represents *S. Tiliæ* and *S. Quercus*.

Africa.

Group 1.

Corpus sat robustum. Proboscis inconspicua. Palpi breves, validi, obtusi. Antennæ setacæ, serratæ aut subpectinatæ, thorace vix longiores. Abdomen thorace duplo longius. Pedes sat validi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longiusculæ, sat angustæ; anticæ subhamatæ, incisuris tribus apud marginem exteriorem perobliquum, angulo interiore producto; posticæ subdenticulatæ, ex parte emarginatæ.

Male. Body moderately stout. Proboscis not apparent. Palpi short, stout, obtuse. Antennæ setaceous, serrate or minutely pectinated, hardly longer than the thorax. Abdomen about twice the length of the thorax. Legs rather stout; hind tibiæ with four moderately long spurs. Wings rather long and narrow. Fore wings slightly hooked, with three rather deep and successively longer excavations along the exterior border, which is very oblique; interior angle prominent; second inferior vein much further from

the third than from the first; third much nearer to the second than to the fourth. Hind wings slightly denticulated, partly emarginated.

11. SMERINTHUS GRAYII.

Mas. *Pallide cinereus; alæ anticæ lineis alternis obliquis rectis et undulosis plagisque duabus (una subquadrata interiore, altera elongata exteriori) fuscis, gutta basali nigra guttaque discali albida; alæ posticæ lineis duabus fuscescentibus, maculaque apud angulum interiorem album obscure fusca.*

Smerinthus Grayii, Boisd. MSS.

Male. Pale cinereous. Antennæ whitish, with testaceous branches. Fore wings with alternate straight and undulating oblique brown lines, with two more distinct brown patches, one subquadrate on the interior border, the other elongate on the exterior border; a black dot near the base, and a whitish discal dot. Hind wings with two indistinct brownish lines, which are nearly parallel to the exterior border; a dark brown spot by the interior angle, which is white; ciliæ white between the veins. Length of the body 13 lines; of the wings 34 lines.

a. Port Natal. From M. Guenzius' collection.

Asia.

Group 1.

Corpus crassum. Caput breve, vix conicum. Proboscis distincta, brevissima. Palpi acuti, longiusculi, caput paullo superantes. Antennæ serratæ, setacæ, thorace non longiores. Thorax bicristatus. Abdomen thorace non duplo longius. Pedes validi, breviusculi, tibiis quatuor longis. Alæ longæ, latæ; anticæ apud costam vix convexæ, apice subrotundatæ, margine exteriori sat obliquo valde denticulato; posticæ apice rotundatæ, margine exteriori subdenticulato.

Male. Body thick. Head short, hardly conical. Proboscis distinct, very short. Palpi acute, extending a little beyond the head, rather longer than usual. Antennæ serrated, setaceous, not longer than the thorax. Thorax with crests on each side. Abdomen tapering, less than twice the length of the thorax. Legs stout, rather short; hind tibiæ with four long spurs. Wings long, broad. Fore wings very slightly convex in front, somewhat rounded at the tips, rather oblique and much denticulated along the exterior

border. Hind wings rounded at the tips, slightly denticulated along the exterior border.

12. SMERINTHUS DUMOLINII.

Cervinus ; antennæ albæ ; caput supra atrum ; thorax sexcristatus, disco interrupte atro ; alæ anticæ ex parte fuscæ, fascia apud marginem exteriorem indeterminata interrupta obscure fusca, lineis quatuor obliquis (exterioribus undulatis) albidis fusco marginatis, plaga maxima costali nigro-fusca, gutta maculaque trifurcata discalibus albis ; posticæ fasciis duabus obscurioribus, macula subapicali fusca.

Sphinx Dumolinii, Guér. *Icon. Règne Anim.*

a. Port Natal. From M. Gueinzus' collection.

Group 2.

Corpus crassum. Proboscis obsoleta. Palpi validi, subarcuati, breviusculi, caput paullo superantes. Antennæ setacæ, subsimplices, vix serratæ, thorace non longiores. Abdomen thorace vix duplo longius. Pedes validi ; tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ longæ, mediocriter latæ ; anticæ apud costam rectæ, vix acuminatæ, margine exteriore denticulato perobliquo ; posticæ apice rotundatæ, margine interiore subdenticulato.

Male. Body thick. Proboscis obsolete. Palpi stout, slightly curved, rather short, but extending a little beyond the head. Antennæ setaceous, hardly serrate, almost simple, not longer than the thorax. Abdomen almost twice the length of the thorax. Legs stout ; hind tibiæ with two small apical spurs. Wings long, moderately broad. Fore wings straight in front, hardly acuminate, very oblique and distinctly denticulated along the exterior border ; interior border concave towards the interior angle ; inferior veins much as usual. Hind wings rounded at the tips, slightly denticulated along the exterior border.

13. SMERINTHUS DYRAS.

Cervinus ; thorax linea media necnon strigis duabus transversis duabusque obliquis ferrugineis ; abdomen linea dorsali fusca ; alæ anticæ lineis decem variis transversis strigique discali fuscis necnon macula postica obscure fusca, linea 8o valde undulata ; posticæ ferrugineæ, apud angulum interiorem cervinæ maculis duabus obscure fuscis.

Smerinthus Dyras, MSS.

Fawn-colour. Thorax with a ferruginous middle line, and with two transverse and two oblique ferruginous streaks. Abdomen with a dorsal brown line. Fore wings with ten various transverse brown lines, and with a brown discal streak; eighth line extremely undulating, and half enclosing a small dark brown posterior spot. Hind wings ferruginous, pale fawn-colour, and with two dark brown spots about the interior angle. Length of the body 16 lines; of the wings 36 lines.

- a. Ceylon. Presented by R. Templeton, Esq.
- b, c. Silhet. From Mr. Stainforth's collection.
- d. Silhet. From the Rev. J. Stainforth's collection.
- e, f. Silhet. Presented by E. Doubleday, Esq.
- g. Ceylon. From the Rev. J. Wenham's collection.
- h. Silhet? From Mr. Stevens' collection.
- i. ———?

Var. β . Fœm. *Cinereo-fuscus*; *caput vitta subobscuriore*; *thorax vitta obscure ferrugineo-fusca*; *alæ subtus apud angulum anteriorem rufescentes*; *anticæ lineis nonnullis transversis undulosis margineque exteriori fuscis*, *guttis duabus apud angulum anteriorem nigricantibus*; *posticæ apud marginem anteriorem rufo-fuscæ*, *maculis duabus apud angulum anteriorem ferrugineo-fuscis*.

Male. Cinereous-brown, rather pale. Head with a slighter darker stripe. Antennæ whitish. Thorax with a dark ferruginous brown stripe. Wings reddish beneath about the interior angle; ciliæ white between the veins. Fore wings with several undulating brown transverse lines, brown about the exterior border, and with two blackish dots near the end of the interior border. Hind wings reddish, brown along the exterior border, and with two ferruginous-brown spots by the interior angle. Length of the body 15 lines; of the wings 40 lines.

- a. Shanghai, North China. From Mr. Fortune's collection.

Group 3.

Proboscis distincta, brevissima. Palpi breves, validi. Antennæ thorace multo longiores. Abdomen thorace plus duplo longius. Pedes validi, sat longi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longæ, sat angustæ; anticæ vix acuminatæ, apud costam rectæ, margine exteriori perobliquo; posticæ apice rotundatæ subtruncatæ, non dilatatæ. *Mas*.—Antennæ subpectinatæ. Alarum

anticarum margo exterior incisuris quatuor; posticæ apud marginem exteriorem vix excavatæ. *Fæm.*—Antennæ serratæ. Alarum anticarum margo exterior vix denticulatus, posticarum subinteger.

Proboscis distinct, very short. Palpi short, stout. Antennæ much longer than the thorax. Abdomen more than twice the length of the thorax. Legs stout, rather long; hind tibiæ with four moderately long spurs. Wings long, rather narrow. Fore wings straight along the costa, hardly acuminate at the tips, very oblique along the exterior border; interior border somewhat concave towards the interior angle. Hind wings rounded and slightly truncated at the tips, not convex in front. *Male.*—Antennæ slightly pectinated. Exterior border of the fore wings with four excavations which successively increase in size towards the interior angle. Hind wings very slightly excavated on the exterior border. *Female.*—Antennæ serrated. Exterior border of the fore wings hardly denticulated, that of the hind wings almost entire.

14. SMERINTHUS DENTATUS.

Cinereus; antennæ albidæ; alæ anticæ litura discali, fasciis tribus nebulosis lineisque tribus obliquis fuscis, linea exteriori undulata; posticæ apud marginem exteriorem fuscescentes, linea apud angulum interiorem maculisque ciliaribus albis.

Sphinx dentata, *Cram. Pap. Exot.* ii. 42, pl. 125, f. G. *Fabr. Sp. Ins.* ii. 43, 16; *Mant. Ins.* ii. 94, 18; *Ent. Syst.* iii. 1, 361, 19. *Gmel. ed. Syst. Nat.* i. 5, 2376, 60.

Polyptychus dentatus, *Hübner. Verz. Schmett.* 141, 1514.

a. Nepaul. Presented by W. W. Saunders, Esq.

a, b. North India. Presented by Gen. Hearsay.

c, d. North India. From Mr. Stevens' collection.

e. Silhet. From the Rev. J. Stainforth's collection.

15. SMERINTHUS TIMESIUS.

Fuscus; abdomen fascia basali maculisque pallidioribus; alæ anticæ apud marginem exteriorem obscuriores, fasciis quatuor nigris duabusque exterioribus pallidis; posticæ nigro-fuscæ, lunulis marginalibus albidis, basi, plaga apud angulum interiorem vittaque discali pallide fuscis.

Sphinx Timesius, *Stoll. Cram. Pap. Exot.* v. 172, pl. 40, f. 1.

Sphinx dentatus, var.?

Tranquebar.

Group 4.

Corpus vix robustum. Proboscis obsoleta. Palpi breves, validi. Antennæ thorace longiores. Abdomen thorace duplo longius. Pedes sat graciles; tibiæ posticæ calcaribus quatuor breviusculis. Alæ sat longæ, mediocriter latæ, apice rotundatæ; anticæ apud costam rectæ, margine exteriori recto integro mediocriter obliquo. *Mas.*—Antennæ serratæ. *Fæm.*—Antennæ simplices.

Body hardly stout. Proboscis obsolete. Palpi short, stout. Antennæ longer than the thorax. Abdomen about twice the length of the thorax. Legs rather slender; hind tibiæ with four somewhat short spurs. Wings rather long, moderately broad, rounded at the tips. Fore wings straight in front, straight entire and moderately oblique along the exterior border. *Male.*—Antennæ serrated. *Female.*—Antennæ simple.

16. SMERINTHUS PUDORINUS.

Pallide rufo-cervinus; abdomen testaceum; alæ anticæ pallide cervinæ, posticæ pallide rufæ. *Mas.*—*Alæ anticæ lineis nonnullis interruptis fuscis, fasciaque abnormi pallide fusca marginibus obscurioribus.*

Smerinthus pudorinus, Boisd. MSS.

Pale reddish fawn-colour. Antennæ whitish. Abdomen testaceous. Fore wings pale fawn-colour. Hind wings pale red. *Male.*—Fore wings with some interrupted brown lines, and with an irregular pale brown band, which has darker borders. Length of the body 8—9 lines; of the wings 20—24 lines.

a, b. North India. From Mr. Stevens' collection.

Group 5.

Mas. Corpus vix robustum. Proboscis obsoleta. Palpi breves, validi. Antennæ subpectinatæ, thorace longiores. Abdomen oblanceolatum, thorace duplo longius. Pedes breves, validi; tibiæ posticæ calcaribus duobus apicalibus, brevissimis. Alæ longiusculæ, mediocriter latæ, apice rotundatæ; anticæ apud costam rectæ, margine exteriori denticulato perobliquo; posticæ margine exteriori apud angulum anteriorem excavato.

Male. Body hardly stout. Proboscis obsolete. Palpi short, stout. Antennæ minutely pectinated, longer than the thorax. Abdomen oblanceolate, about twice the length of the thorax. Legs short, stout; hind tibiæ with two very short apical spurs. Wings rather long, moderately broad, rounded at the tips. Fore wings straight in front, distinctly denticulated, and very oblique along the exterior border. Hind wings with the exterior border slightly excavated towards the interior angle.

17. SMERINTHUS INDICUS.

Mas. Testaceus; palpi subtus et coxæ anticæ cervina; alæ anticæ lineis sex variis transversis obscure testaceis, plagaque apud marginem exteriorem cervina; posticæ striga apud angulum interiorem cervina.

Smerinthus Indicus, Boisd. MSS.

Male. Testaceous. Palpi beneath and fore coxæ fawn-colour. Fore wings with six various transverse darker testaceous lines, and with a fawn-coloured patch on the exterior border. Hind wings with a fawn-coloured streak by the interior angle. Length of the body 9 lines; of the wings 24 lines.

a. North India. From Mr. Stevens' collection.

Group 6.

Structure of *S. ocellatus*.

18. SMERINTHUS PLANUS.

Mas. Cervinus; alæ anticæ fascia interrupta latissima pallide fusca linea transversa obscuriore, gutta discali albida, lineis duabus exterioribus transversis undulatis obscure fuscis strigaque apud marginem exteriorem dilatata fusca; posticæ antice roseæ, ocello magno cyaneo-atro.

Male. Fawn-colour. Fore wings with a very broad pale brown interrupted band, which contains a whitish discal dot, and is divided by a darker brown line; two exterior undulating dark brown transverse lines, and an irregular dilated brown streak along part of the exterior border. Hind wings rosy in front of the large black ocellus, which is bordered with blue, and has a deep black outer ring. Length of the body 16 lines; of the wings 36 lines.

a. North China. From Mr. Cuming's collection.

Group 7.

Structure of *S. Tiliæ*.

19. SMERINTHUS DECOLOR.

Rufo-testaceus, subtus pallidior; alæ anticæ pallide rufescente cinereæ, fasciis nonnullis angustis undulatis obscurioribus non bene determinatis; posticæ pallide rufæ.

Reddish testaceous, paler beneath. Fore wings pale reddish gray, with some slender indistinct undulating darker bands. Hind wings pale red. Length of the body 18 lines; of the wings 28 lines.

Hindustan. In Mr. Saunders' collection.

The following species may form a new genus, and perhaps is allied to *Calliomma*.

20. SMERINTHUS? APULUS.

Mas. *Rufus; abdomen nigro fasciatum; antennæ subpectinatæ; alæ angustæ, cervino marginatæ; anticæ apice truncato incisæ, gutta basali fasciisque duabus undulatis nigris, lituris duabus discalibus auratis; posticæ albæ.*

Sphinx Apulus, *Cram. Pap. Exot.* i. 8, pl. 88, f. E. *Fabr. Sp. Ins.* ii. 142, 12; *Mant. Ins.* ii. 93, 13; *Ent. Syst.* iii. 1, 360, 14. *Gmel. ed. Syst. Nat.* i. 5, 2374, 55.

Colax Apulus, *Hübner. Verz. Schmett.* 141, 1513.

Surinam.

Country unknown.

Group of *S. Populi*.

21. SMERINTHUS PRINCEPS.

Canescens; antennæ albidæ; thorax vitta lata cervina; abdomen cervinum; alæ anticæ gutta discali albida, fasciis duabus lineisque tribus transversis undulatis fusciscentibus; posticæ roseæ, margine pallide fusco, apud angulum interiorem glaucescentes striga nigra.

Colour somewhat hoary. Antennæ whitish. Thorax with a broad fawn-coloured stripe. Abdomen fawn-colour. Fore wings with two bands and three transverse undulating lines of a brownish

hue; first line near the base; second and third between the two bands; first band much darker and broader than the second, and including a whitish discal mark. Hind wings rosy; borders mostly fawn-colour; space about the interior angle somewhat glaucous, with a short broad black streak. Length of the body 17 lines; of the wings 52 lines.

In Mr. Walker's collection.

Genus 38. CŒQUOSA.

Corpus crassum. Proboscis brevis, distincta. Palpi crassi, pilosi, longiusculi, caput superantes. Antennæ setaceæ, thorace longiores. Abdomen thorace duplo longius. Pedes crassi; tibiæ posticæ calcaribus quatuor abbreviatis. Alæ longæ, mediocriter latæ; anticæ non acuminatæ, apud costam subconvexæ, margine exteriori sat obliquo; posticæ apice rotundatæ, margine exteriori apud angulum interiorem subexcavato. *Mas.*—Antennæ serratæ. *Fœm.*—Antennæ simplices.

Body thick. Proboscis short, distinct. Palpi thick, pilose, rather long, projecting some distance beyond the head. Antennæ setaceous, larger than the thorax. Abdomen about twice the length of the thorax. Legs thick; hind tibiæ with four short spurs. Wings long, moderately broad. Fore wings not acuminate, slightly convex in front, rather oblique along the exterior border; interior border slightly concave towards the interior angle; second inferior vein twice further from the third than from the first; third twice further from the fourth than from the second. Hind wings rounded at the tips; exterior border very slightly emarginated towards the interior angle. *Male.*—Antennæ serrated. *Female.*—Antennæ simple.

Group 1.

Alæ anticæ apice rotundatæ; margo exteriori subrectus, apud medium vix concavus.

Fore wings rounded at the tips; exterior border almost straight, hardly concave about the middle.

1. CÆQUOSA TRIANGULARIS.

Ferruginea ; caput et thorax viridi-ferruginea ; antennæ albidæ ; thorax fasciis duabus anticis vittisque duabus obliquis nigro-fuscis ; abdomen cervinum, linea dorsali fusca ; alæ anticæ albido suffusæ, plaga antica maxima trigona fusca ; posticæ basi et ad costam luteæ, apud angulum interiorem albidæ.

*Sphinx triangularis, Donovan. South Sea Ins. Lep. f. **.*

a. Australia. Presented by J. Hunter, Esq.

b. Moreton Bay. Presented by — Gibbons, Esq.

c. ——— ?

Group 2.

Alæ anticæ truncatæ. Mas.—Alæ anticæ margine exteriori apices versus excavato, postice subrecto. Fæm.—Alæ anticæ margine exteriori vix concavo.

Fore wings truncated at the tips. *Male.*—Exterior border of the fore wings concave in front of the middle, almost straight from thence to the interior angle. *Female.*—Fore wings with the exterior border hardly concave.

2. CÆQUOSA AUSTRALASIÆ.

Pallide cinerea ; caput et thorax vitta rufo-ferruginea ; alæ anticæ fasciis nonnullis subobsoletis pallide fuscis, basi postice luteæ ; posticæ luteæ, margine exteriori fusco, angulo interiori albido. Mas.—Alæ anticæ fascia latissima interrupta cinerea fusco interlineata et ex parte fusco marginata, fasciis duabus guttularibus exterioribus maculaque marginali fuscis.

*Sphinx Australasiæ, Donovan. South Sea Ins. Lep. f. *.*

Pale cinereous. Head and thorax with a reddish ferruginous stripe. Fore wings with some indistinct pale brown bands, luteous at the base of the interior border. Hind wings bright luteous, brown along the exterior border, whitish about the interior angle. *Male.*—Fore wings with a very broad interrupted cinereous band, which contains a brown streak, and is partly bordered with dark brown ; two rows of exterior brown dots, and a brown spot on the exterior border. Length of the body 24—26 lines ; of the wings 54—64 lines.

a. Australia. From Mr. Strange's collection.

b. Australia. From Mr. Stevens' collection.

c, d. New South Wales. From Mr. Wood's collection.

3. CÆQUOSA ? PHALARIS.

Fulvescens ; thorax linea nigra ; abdomen fasciis angustis fuscis ; alæ anticæ fuscescentes striga basali rufa, vitta postica plaga-que subapicali glaucis, fascia obliqua fusca, lineis exterioribus tribus obliquis strigae costali subapicali nigricantibus, margine exteriori cervino ; posticæ rufæ, costa cervina, plaga apud angulum interiorem glauca.

Sphinx Phalaris, *Cram. Pap. Exot.* ii. 83, pl. 149, f. A.

Coromandel.

Genus 39. CERATOMIA.

Corpus robustum. Caput breve, vix conicum. Proboscis brevis. Palpi longiusculi. Antennæ setacæ. Abdomen sublineare, thorace vix duplo longius. Pedes sat validi ; tibiæ posticæ calcari-
bus quatuor longiusculis. Alæ longæ, mediocriter latæ ; anticæ vix acuminatæ, apud costam subconvexæ, margine exteriori sub-
recto perobliquo ; posticæ apice subrotundatæ. *Mas.*—Antennæ serratæ. *Fæm.*—Antennæ simplices.

Ceratomia, *Harris, Amer. Journ. Sci.* xxxvi. 293.

Body stout. Head short, hardly conical. Proboscis short. Palpi a little longer than usual. Antennæ setaceous. Abdomen almost linear, nearly twice the length of the thorax. Legs rather stout ; hind tibiæ with four rather long spurs. Wings long, moderately broad. Fore wings hardly acuminate, very slightly convex in front, almost straight, and very oblique along the exterior border ; second inferior vein hardly further from the third than from the fourth ; third about twice further from the fourth than from the second. Hind wings somewhat rounded at the tips. *Male.*—Antennæ serrated. *Female.*—Antennæ simple.

1. CERATOMIA QUADRICORNIS.

Cervina ; caput supra thoracisque latera albida ; thorax fascia antica vittisque duabus fuscis nigro marginatis ; abdomen linea interrupta media vittisque quatuor nigris ; alæ ciliis albo maculatis ; anticæ albido variæ, lineis transversis obliquis undulatis obscurioribus, apud discum fuscescentes strigis quatuor obliquis nigris, lineis posticis subundulatis albidis fuscisque, macula discali alba ; posticæ fasciis fuscis.

Ceratomia quadricornis, *Harris, Amer. Journ. Sci.* xxxvi. 293.

a, b. United States. Presented by E. Doubleday, Esq.

c. Massachusetts. From Prof. Sheppard's collection.

A D D E N D A .

Page 20.

ÆGERIA ŒSTRIFORMIS.

bb. Europe.

Page 54.

ÆGERIA PANURGIFORMIS.

h. Villa Nova. From Mr. Bates' collection.

Page 57.

ÆGERIA PLATYURIFORMIS.

b. Port Natal. From Mr. Plant's collection.

Page 64.

SANNINA UROCERIFORMIS.

This species is figured in *Hübner, Exot. Schmett.* f. 533, 534.

d. United States. Presented by E. Doubleday, Esq.

Page 67.

MELITTIA PULCHRIPES.

This species is figured in *Hübner, Exot. Schmett.* f. 453, 454.

Page 74.

THYRIS?? ASILIFORMIS.

Cinerea; thorax antice cinerascens; antennæ apice albæ; alæ anticæ eroso dentatæ, fascia media lata obscuriore, puncto nigro; posticæ rubræ, margine nigro; subtus virescentes fascia alba.

Sphinx asiliformis, Fabr. *Ent. Syst.* iii. 1, 357, 7.

Hindostan?

Page 76.

Genus TINÆGERIA.

Corpus gracile. Proboscis brevissima. Palpi graciles, arcuati, ascendentes, thorace non breviores. Antennæ setaceæ, graciles, subpilosæ, corpore fere longiores. Abdomen lineare, gracile, apice non fasciculatum. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ perangustæ; posticæ limpidæ.

Body slender. Proboscis very short. Palpi slender, curved, ascending, as long as the thorax; third joint very slender. Antennæ setaceous, slender, slightly pilose, full as long as the body. Abdomen linear, sessile, not tufted at the tip. Legs slender; hind tibiæ with four long spurs. Wings very narrow. Hind wings mostly limpid.

This genus seems to connect the *Tineites* with the *Ægeriidae*.

1. TINÆGERIA OCHRACEA.

Ochracea, subtus argentea; caput nigro-cyaneum; antennæ nigræ, apices versus albæ; thoracis disco et abdomen apice nigrum; alæ anticæ nigræ, basi fasciæque subapicali ochraceis; posticæ limpidæ, apud costam ochraceæ, apice nigricantes.

Ochraceous, silvery beneath. Head dark blue. Disk of the thorax and tip of the abdomen black. Fore wings black, ochraceous towards the base, and with an ochraceous subapical band. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

a, b. Parà. From Mr. Bates' collection.

2. TINÆGERIA LINEATA.

Nigra ; palpi thorace longiores ; thorax et abdomen basi ochracea ; alæ anticæ ochraceo venosæ, posticæ basi luteæ.

Black. Palpi longer than the thorax. Thorax and base of the abdomen ochraceous. Hind wings luteous towards the base. Length of the body $2\frac{1}{2}$ lines ; of the wings 5 lines.

a, b. Parà. From Mr. Bates' collection.

3. TINÆGERIA FASCIATA.

Nigra ; pectus albidum ; abdomen ochraceum, basi et apice nigrum ; pedes ochracei, nigro fasciati ; alæ posticæ sublimpidæ, nigro marginatæ, apud costam testaceæ.

Black. Pectus whitish. Abdomen ochraceous, black at the base and towards the tip. Hind wings nearly limpid, bordered with black, testaceous along the costa. Length of the body $2\frac{1}{2}$ lines ; of the wings 5 lines.

a. Parà. From Mr. Bates' collection.

Page 79.

SESIA BOMBYLIFORMIS.

m. Europe.

Page 80.

SESIA FUCIFORMIS.

s, t. Europe.

Page 88.

MACROGLOSSA TANTALUS.

k. ——— ?

Page 97.

MACROGLOSSA?? FIMBRIATA.

Alæ anticæ luteæ, macula margineque postico nigris ; posticæ hyalinæ, luteo venosæ.

Sphinx fimbriata, Linn. *Mus. Lesk.* 96, 192. *Gmel. ed. Syst. Nat.* i. 5, 2386, 163.

Page 100.

THYREUS? CLARKIÆ.

Pterogon Clarkiæ, *Boisd. Ann. Soc. Ent. Fr. 2me Sér. x.*
California.

Page 136.

CHÆROCAMPA CHARIS.

h. Port Natal. From Mr. Plant's collection.

Page 148.

CHÆROCAMPA? MINUS.

Abdomen subtus cinerascens; alæ anticæ virescentes, posticæ ferrugineæ margine nigro.

Sphinx Minus, *Fabr. Mant. Ins. ii. 96, 44. Gmel. ed. Syst. Nat. i. 5, 2381, 78.*

Hindustan.

Page 164.

DEILEPHILA LIVORNICA.

l, m. Europe. From M. Becker's collection.

Page 212.

SPHINX CONVULVULI.

rr. Ctesiphon, below Bagdad. Presented by W. K. Loftus, Esq.

Page 216.

SPHINX CAROLINA.

n. Sandwich Islands. From Capt. Beechey's Voyage. Presented by the Lords of the Admiralty.

Page 218.

SPHINX GORDIUS.

c. Hudson's Bay. Presented by Dr. Barnston.

Page 222.

Uncertain Species.

SPHINX ? TETRIO.

Alæ dentatæ, cinereæ, fusco variæ ; abdomen subtus album, punctis quatuor ferrugineis.

Sphinx Tetrío, *Fabr. Sp. Ins.* ii. 145, 27 ; *Mant. Ins.* ii. 96, 30 ; *Ent. Syst.* iii. 1, 366, 32. *Gmel. ed. Syst. Nat.* i. 5, 2375, 61.

Sphinx Plumieriæ, *Merian, Ins. Sur.* pl. 5.

Surinam.

SPHINX ? VAMPYRUS.

Alæ cinereæ, pallide strigosæ ; posticæ rufæ, margine nigro.

Sphinx Vampyrus, *Fabr. Mant. Ins.* ii. 98, 66. *Gmel. ed. Syst. Nat.* i. 5, 2379, 72.

SPHINX ? CLIO.

Virescens ; abdominis segmenta tria ultima utrinque punctis duobus albis ; alæ anticæ puncto medio nigro ; posticæ subdentatæ testaceæ, margine postico nigro.

Sphinx Clio, *Fabr. Ent. Syst.* iii. 1, 377, 65.

Guinea.

SPHINX ? MEDEA.

Alæ subdentatæ, anticæ virides, posticæ fulvæ, margine nigro.

Sphinx Medea, *Fabr. Sp. Ins.* ii. 143, 19 ; *Mant. Ins.* ii. 94, 22 ; *Ent. Syst.* iii. 1, 363, 23. *Gmel. ed. Syst. Nat.* i. 5, 2376, 64.

Equinoctial Africa.

SPHINX ? RHADAMISTUS.

Cinerea ; abdomen basi nigrum ; alæ anticæ puncto basali et fascia media obliqua abbreviata nigris.

Sphinx Rhadamistus, *Fabr. Mant. Ins.* ii. 93, 10 ; *Ent. Syst.* iii. 1, 359, 11. *Gmel. ed. Syst. Nat.* i. 5, 2373, 53.

Sierra Leone.

SPHINX ? TISIPHONE.

Alæ anticæ cinereæ, vitta pallida; posticæ supra nigræ, basi rubræ.

Sphinx Tisiphone, *Linn. Mus. Lud. Ulr.* 359. *Gmel. ed. Syst. Nat.* i. 5, 2386, 23.

Hindostan.

SPHINX ? PAGANA.

Alæ cinereo nebulosæ; posticæ supra disco ferrugineo.

Sphinx pagana, *Fabr. Sp. Ins.* ii. 146, 29; *Mant. Ins.* ii. 95, 32. *Gmel. ed. Syst. Nat.* i. 5, 2385, 92.

SPHINX ?? OCYPETE.

Alæ nebulosæ, posticæ margine postico basali albo.

Sphinx Ocypete, *Linn. Mus. Lud. Ulr.* 344. *Gmel. ed. Syst. Nat.* i. 5, 2373, 4.

Page 258.

Genus ARCTONOTUS.

Arctonotus, *Boisd. Ann. Soc. Ent. Fr. 2me Sér.* x.

Mas. Corpus crassum, pilosissimum. Proboscis brevissima aut obsoleta. Palpi validi, brevissimi, pilosissimi. Antennæ robustæ, serratæ, valde pubescentes, thorace multo longiores. Abdomen longi-obconicum, thorace vix longius. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor parvis. Alæ mediocriter latæ, non longæ, vix denticulatæ, sat latæ ciliatæ; anticæ apud costam rectæ, vix acuminatæ, margine exteriori sat obliquo vix convexo; posticæ apice rotundatæ.

Male. Body thick, very pilose. Proboscis very short, obsolete. Palpi stout, very short and pilose. Antennæ thick, serrate, very pubescent, much longer than the thorax. Abdomen elongate-obconical, hardly longer than the thorax. Legs stout, pilose; hind tibiæ with four rather short spurs. Wings moderately broad, not long, hardly denticulated, rather deeply ciliated. Fore wings straight in front, slightly acuminate, rather oblique and slightly convex along the exterior border; second inferior vein nearer to the third than to the first; third rather further from the fourth than from the first. Hind wings much rounded at the tips.

This genus appears to connect *Smerinthus* with the *Bombycidæ*.

1. ARCTONOTUS LUCIDUS.

Mas. *Aurato-fulva*; palpi fulvi; antennæ testaceæ, ramis ferrugineis; thoracis tegulæ apud margines albidos obscuriores; alæ anticæ fasciis duabus obliquis connexis purpurascentibus; posticæ rufæ, marginibus auratis fasciaque ferruginea submarginali.

Male. Gilded tawny. Palpi brown. Antennæ testaceous with ferruginous branches. Lappets of the thorax with a darker border, which has a whitish edge. Fore wings with two oblique purplish bands, which are connected along the interior border. Hind wings red, with gilded borders, and with a ferruginous submarginal band. Length of the body 8 lines; of the wings 18 lines.

a. California.

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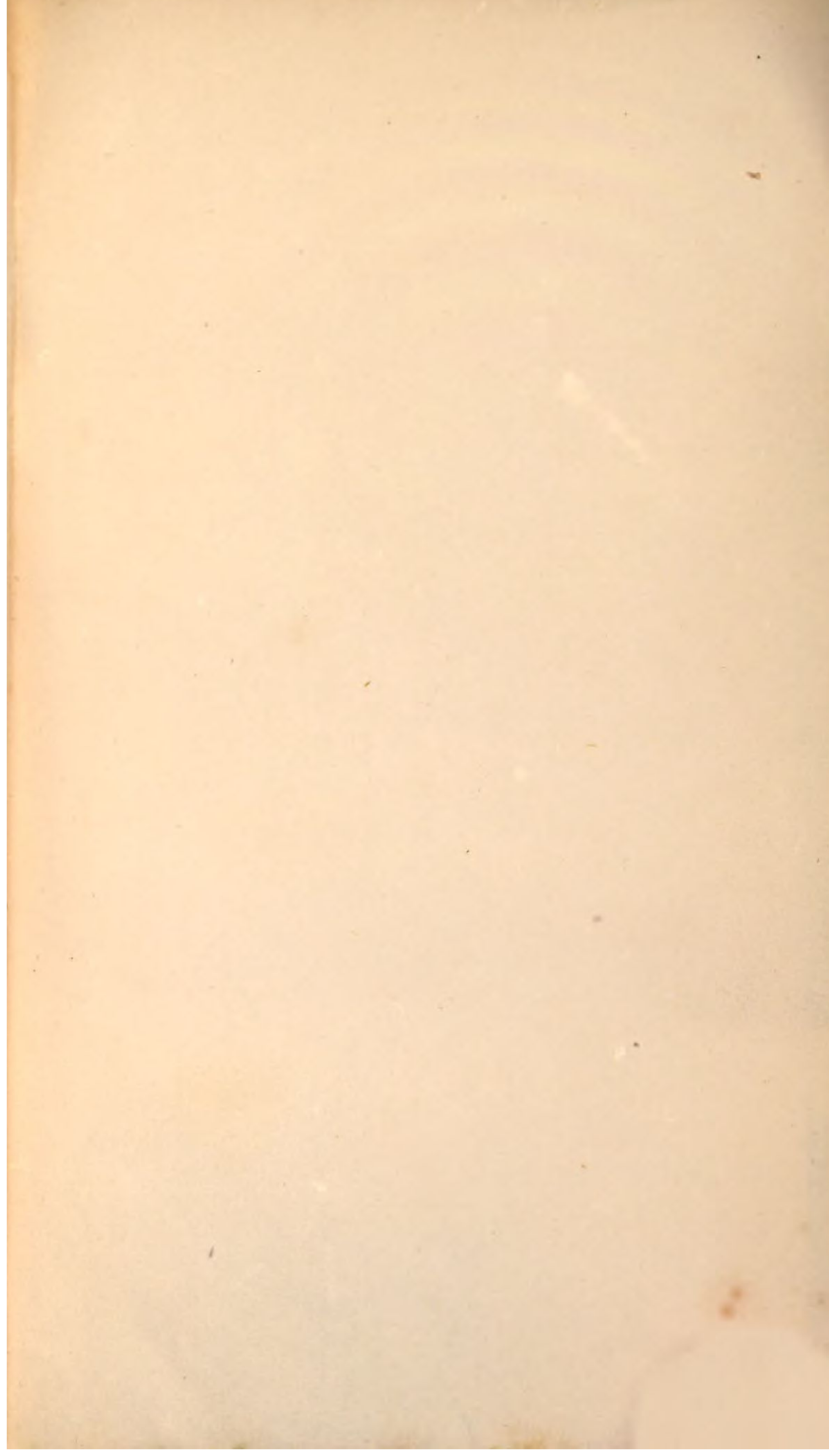
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